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Section 1

General Information

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General Information

Introduction

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage (Chevrolet)

5138041

The VIN plate is the legal identifier of the vehicle. The VIN plate (1) is located on the upper left corner of the instrument panel (I/P) and can be seen through the windshield from the outside of the vehicle:

Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Region of Build	1	United States
2	Manufacturer	G	General Motors
		H	Navistar Inc.
3	Vehicle Brand/Type	A	Chevrolet Bus (Non School Bus)
		B	Chevrolet Incomplete Truck
		C	Chevrolet Truck
		A	Chevrolet Incomplete Truck (Navistar Only)

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
4	GVWR/Brake System/Body Style	W	8,001–9,000 lbs/Hydraulic/Cargo Van/Four Door Cab/ Utility or Passenger Van
		Y	8,001–9,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		Z	9,001–10,000 lbs/Hydraulic/Cargo Van/Four Door Cab/ Utility or Passenger Van
		0	9,001–10,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		3	10,001–14,000 lbs/HydraulicCommercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		6	14,001–16,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
5–6	Chassis/Series	G/A	Chevrolet Express, 2500 Cargo
		G/B	Chevrolet Express, 2500 Cargo EXT
		G/E	Chevrolet Express, 2500 Passenger LS
		G/F	Chevrolet Express, 2500 Passenger LT
		G/G	Chevrolet Express, 3500 Cargo
		G/H	Chevrolet Express, 3500 Cargo EXT
		G/L	Chevrolet Express, 3500 Passenger LS
		G/M	Chevrolet Express, 3500 Passenger LT
		G/N	Chevrolet Express, 3500 Passenger LS EXT
		G/P	Chevrolet Express, 3500 Passenger LT EXT
		G/R	Chevrolet Express, 3500 Cutaway 139" Wheelbase
		G/S	Chevrolet Express, 3500 Cutaway 159" Wheelbase
		G/T	4x2, Chevrolet Express, 3500 Cutaway 177" Wheelbase
		G/U	Chevrolet Express, 4500 Cutaway 159" Wheelbase
		G/V	Chevrolet Express, 4500 Cutaway 177" Wheelbase
		G/9	Chevrolet Express (Non-US, Non-Canada)
7	Restraint System	B	AJ3 − Active Manual Belts, Airbag − Driver only − Front
		C	AK5 − Active Manual Belts, Airbag-Driver & Passenger-Front – Front (1st row)
		F	AK5 & ASF − Active Manual Belts, Airbags - Driver & Passenger - Front (1st row), Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
		H	AJ3 & ASF - Active Manual Belts, Airbag - Driver only - Front, Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
8	Engine Type	P	RPO LV1 – Engine Gas, 6 CYL, 4.3L, SIDI, V6, VVT, E85 MAX, Iron
		1	RPO LWN - Engine Diesel, 2.8L, DI, L4, DOHC, Turbo, XLDE
9	Check Digit	—	Check Digit
10	Model Year	M	2021
11	Plant Location	1	Wentzville
		N	Springfield

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
12–17	Plant Sequence Number	—	Plant Sequence Number

2.8L RPO LWN Engine ID and VIN Derivative Location

Engine Identification

4.3L RPO LV1 Engine ID and VIN Derivative Location

Engine Identification

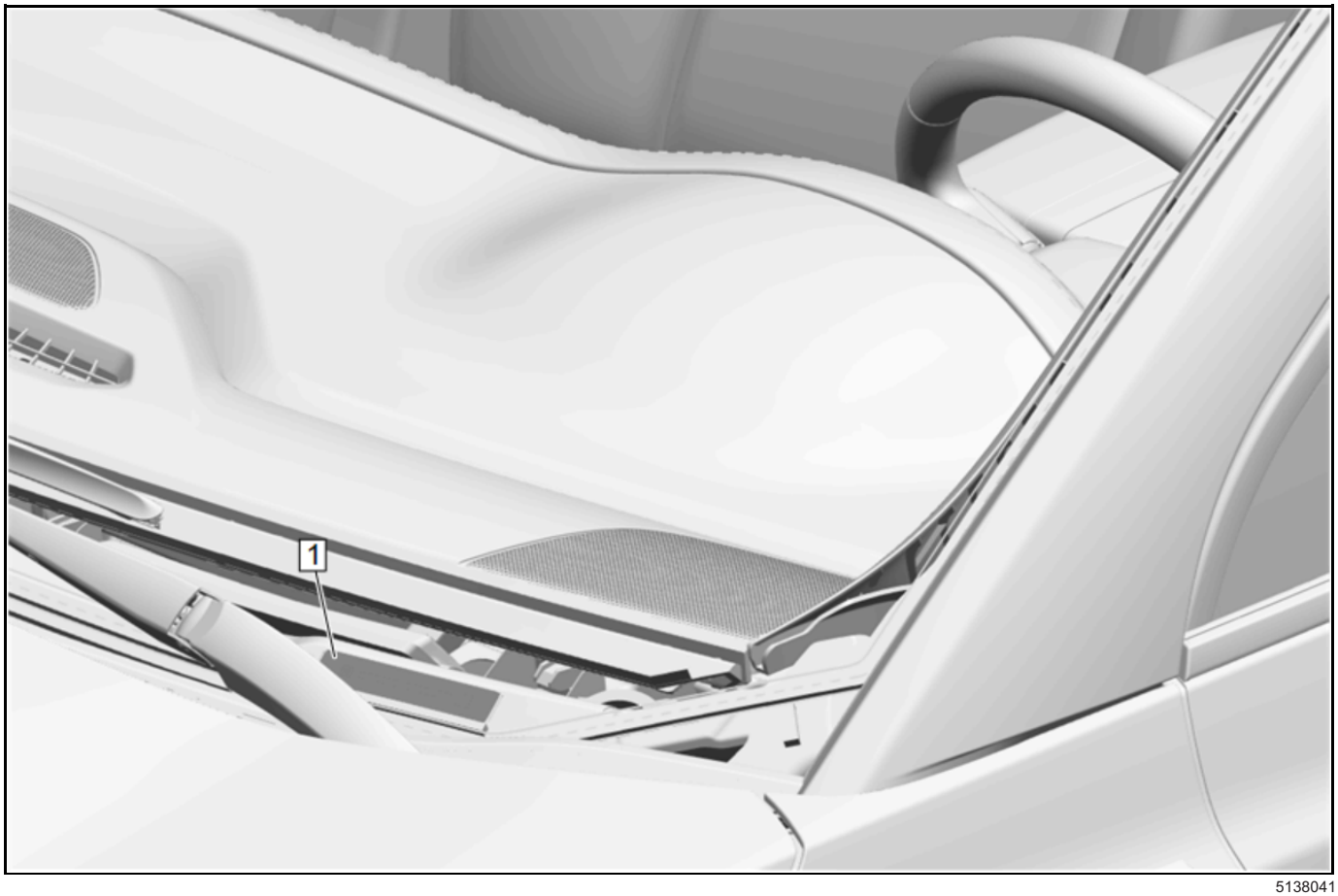
6L90 (MYD) Transmission ID and VIN Derivative Location

Transmission Identification Information

8L90 (M5U) Transmission ID and VIN Derivative Location

Transmission Identification Information

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage (GMC)



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The VIN plate is the legal identifier of the vehicle. The VIN plate (1) is located on the upper left corner of the instrument panel (I/P) and can be seen through the windshield from the outside of the vehicle:

Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Region of Build	1	United States
		7	United States
2	Manufacturer	G	General Motors
		G	Navistar Inc. (7GZ Only)
3	Vehicle Brand/Type	D	GMC Incomplete Truck
		J	GMC Bus (Non School Bus)
		T	GMC Truck
		Z	GMC Incomplete Truck (Navistar Only)
4	GVWR/Brake System/Body Style	W	8,001–9,000 lbs/Hydraulic/CargoVan/Four Door Cab/ Utility or Passenger Van
		Y	8,001–9,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		Z	9,001–10,000 lbs/Hydraulic/CargoVan/Four Door Cab/ Utility or Passenger Van
		0	9,001–10,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		3	10,001–14,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		6	14,001–16,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
5–6	Chassis/Series	7/A	GMC Savana, 2500 Cargo
		7/B	GMC Savana, 2500 Cargo EXT
		7/E	GMC Savana, 2500 Passenger LS
		7/F	GMC Savana, 2500 Passenger LT
		7/G	GMC Savana, 3500 Cargo
		7/H	GMC Savana, 3500 Cargo EXT
		7/L	GMC Savana, 3500 Passenger LS
		7/M	GMC Savana, 3500 Passenger LT
		7/N	GMC Savana, 3500 Passenger LS EXT
		7/P	GMC Savana, 3500 Passenger LT EXT
		7/R	GMC Savana, 3500 Cutaway 139" Wheelbase
		7/S	GMC Savana, 3500 Cutaway 159" Wheelbase
		7/T	GMC Savana, 3500 Cutaway 177" Wheelbase
		7/U	GMC Savana, 4500 Cutaway 159" Wheelbase
		7/V	GMC Savana, 4500 Cutaway 177" Wheelbase
		7/9	GMC Savana (Non-US, Non-Canada)

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
7	Restraint System	B	AJ3 − Active Manual Belts, Airbag − Driver only − Front
		C	AK5 − Active Manual Belts, Airbag – Driver and Passenger – Front (1st row)
		F	AK5 & ASF − Active Manual Belts, Airbags - Driver & Passenger - Front (1st row), Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
		H	AJ3 & ASF — Active Manual belts, Airbag - Driver only - Front, Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
8	Engine Type	P	RPO LV1 – Engine Gas, 6 CYL, 4.3L, SIDI, V6, VVT, E85 MAX, Iron
		1	RPO LWN - Engine Diesel, 2.8L, DI, L4, DOHC, Turbo, XLDE
9	Check Digit	—	Check Digit
10	Model Year	M	2021
11	Plant Location	1	Wentzville
		N	Springfield
12–17	Plant Sequence Number	—	Plant Sequence Number

2.8L RPO LWN Engine ID and VIN Derivative Location

Engine Identification

4.3L RPO LV1 Engine ID and VIN Derivative Location

Engine Identification>

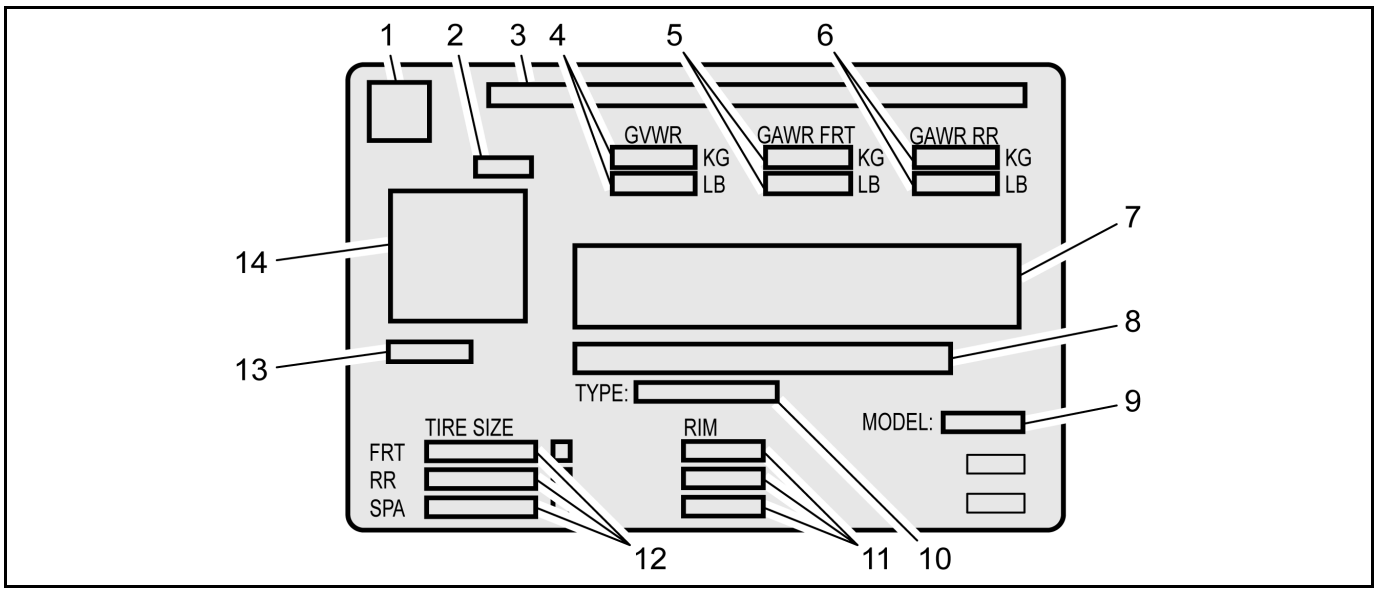
6L90 (MYD) Transmission ID and VIN Derivative Location

Transmission Identification Information

8L90 (M5U) Transmission ID and VIN Derivative Location

Transmission Identification Information

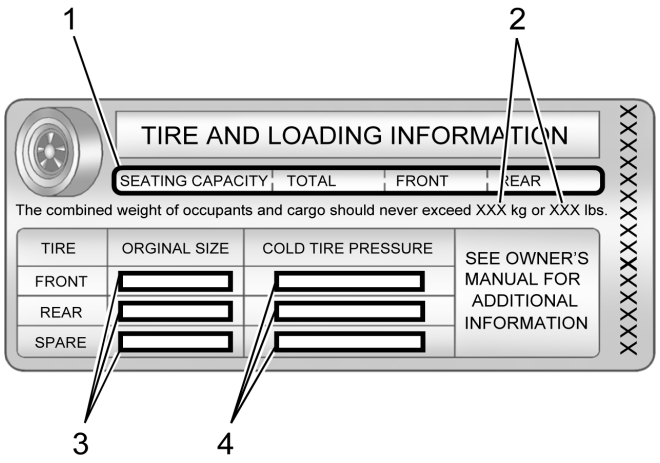
Vehicle Certification, Tire Placard, and Anti-Theft Label



4992823

Vehicle Certification Label

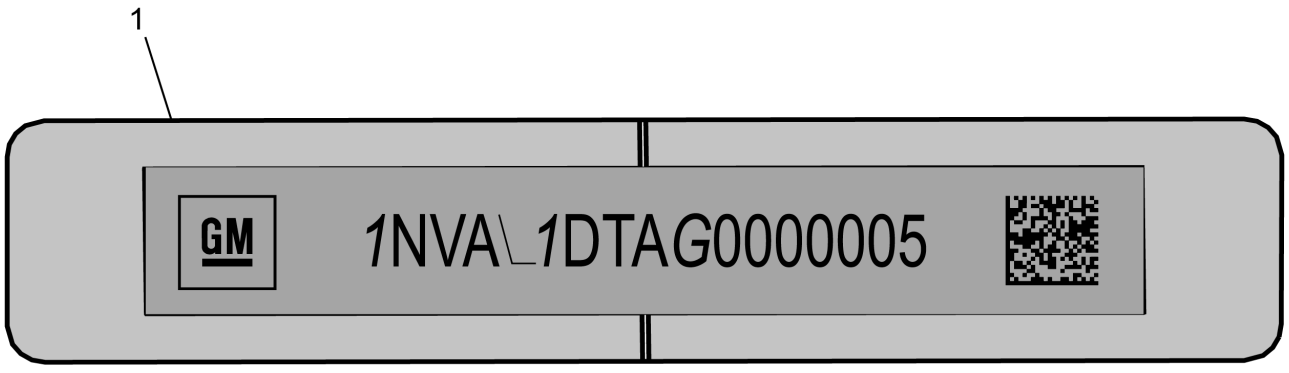
Callout	Description
A vehicle-specific Certification label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Logo
2	Final Date of Manufacture (Month and Year MM/YY) Date of manufacture is to reflect the date that the vehicle is counted as built. In those cases where a replacement label is needed, the replacement label should reflect the actual build date not the date of replacement.
3	Name of Manufacturer
4	Maximum Gross Vehicle Weight Rating (GVWR)
5	Maximum Gross Axle Weight Rating (GAWR) - Front
6	Maximum Gross Axle Weight Rating (GAWR) - Rear
7	Certification Statement
8	Vehicle Identification Number (VIN)
9	Engineering Model Number
10	Vehicle Class Type (Pass Car, etc.)
11	Original Equipment Rim Size
12	Original Equipment Tire Size
13	Paint Code
14	QR Code Once the QR code is scanned, the information will appear in this order on your smartphone or laptop: VIN, Model Year, Model, Build Month, Year, Engineering Book, Vehicle Order Number, 3 Digit RPO Codes sorted alphanumerically and the Paint Code (same code appears the lower left of the QR code)



4962282

Tire Placard

Callout	Description
A vehicle-specific Tire and Loading Information label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Specified Occupant Seating Positions
2	Maximum Vehicle Capacity Weight
3	Original Equipment Tire Size
4	Tire Pressure, Front, Rear, and Spare (Cold)



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Anti-Theft Label

Callout	Description
This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification and certificates of title and registration.	
1	Vehicle Identification Number (VIN)

Section 2

Body Systems

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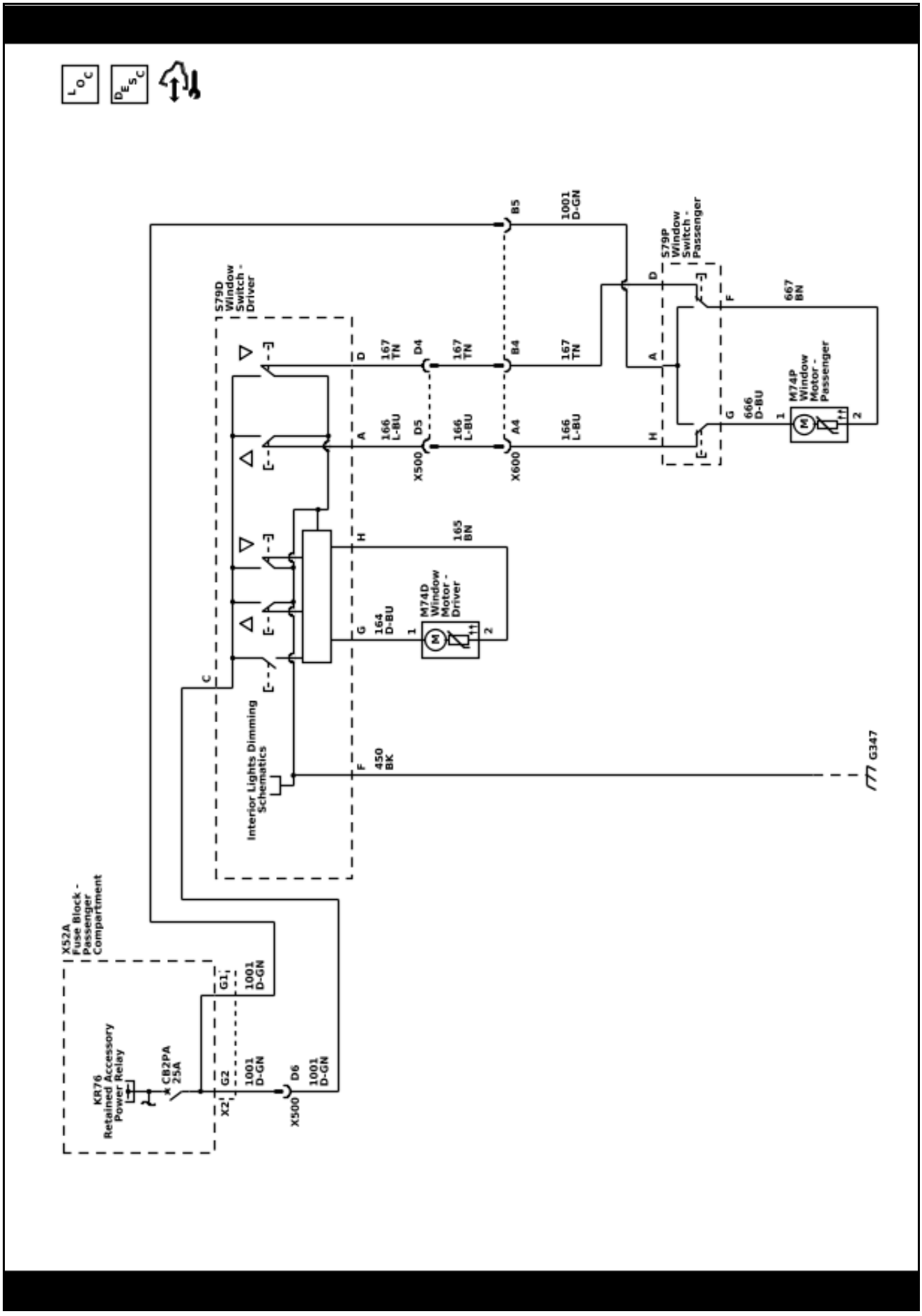
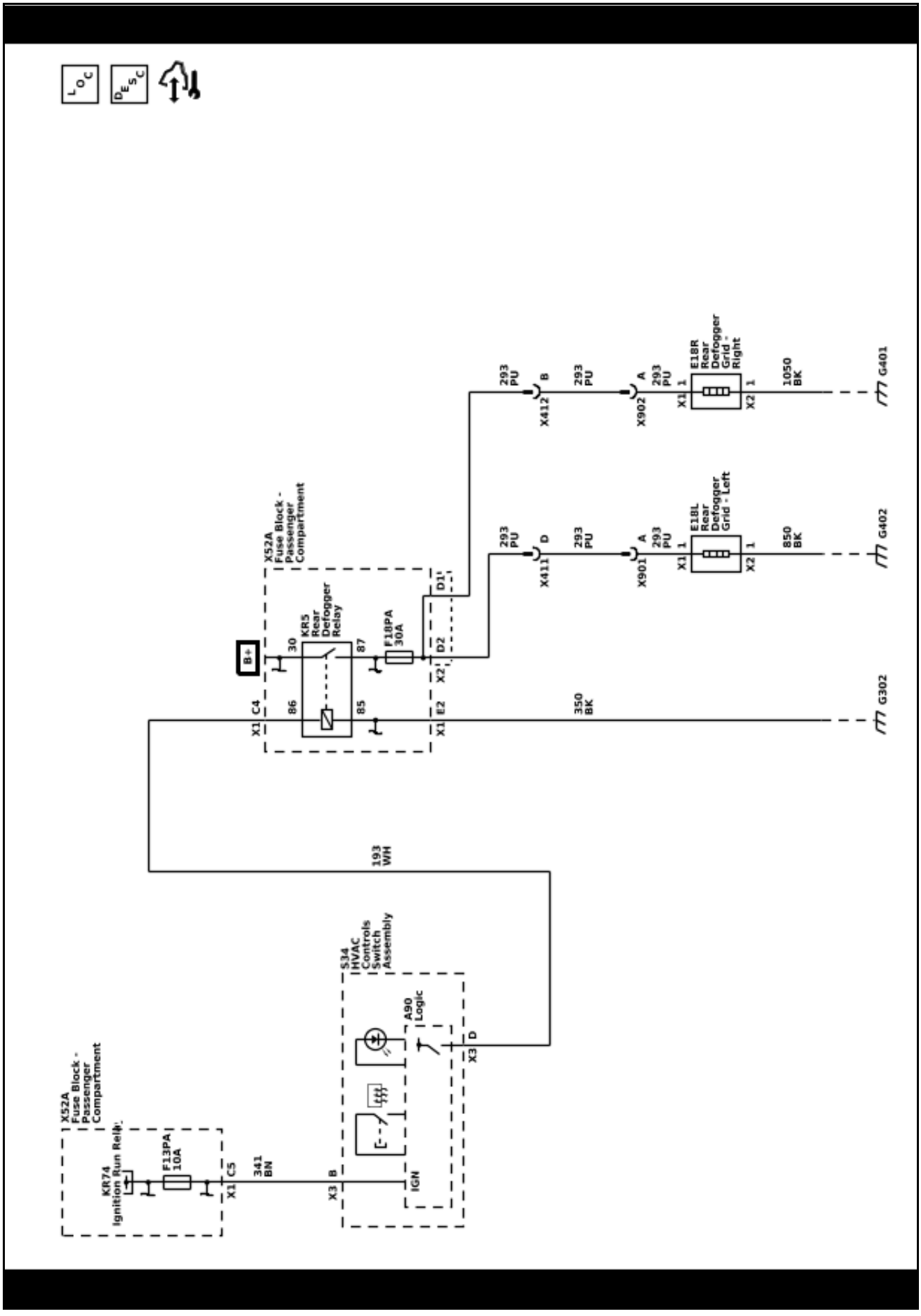
Fixed and Moveable Windows

Schematic and Routing Diagrams

Moveable Window Schematics (Moveable Windows (A31))



Defogger Schematics (Defogger (C49))



Description and Operation

Power Windows Description and Operation

Power Window System Components

The power window system consists of the following components:

- LF power window master switch
- RF power window switch
- Reversible power window motors in each of the doors (circuit breaker protected)
- PWR WNDW 25A circuit breaker

Power Window System Controls

The power window system will operate anytime the ignition switch is in the ACCY or ON position or when RAP is activated.

The LF power window master switch can control the up and down functions of both the windows in the vehicle. The passenger door power window switch can only control the up and down functions of the passenger window.

Power Window Motor Operation

A permanent magnet motor operates each of the power side windows. Each motor raises or lowers the glass when the motor receives voltage. The direction the motor turns depends on the polarity of the supply voltage. The power window switches control the polarity of the supply voltage. A built-in circuit breaker protects each motor. The circuit breaker opens when the switch is depressed for a extended period of time under the following conditions:

- The window has an obstruction.
- The window is fully open or fully closed.

The circuit breaker will reset automatically as the circuit breaker cools.

Power Window Operation

The normally closed contacts of the switch are connected to ground and the center pole is connected to the accessory voltage circuit. By placing the left power window switch in the down position, voltage is applied to the power window motor left front down circuit and to the power window motor. The other side of the power window motor is connected to ground through the normally closed contacts of the left power window switch through the power window motor left front up circuit and drives the window down.

By placing the power window switch in the up position the polarity of the motor is reversed and the motor drives the window up.

Rear Window Defogger Description and Operation

Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- HVAC control assembly
- Rear window defogger relay
- Rear window defogger grid

Rear Window Defogger Operation

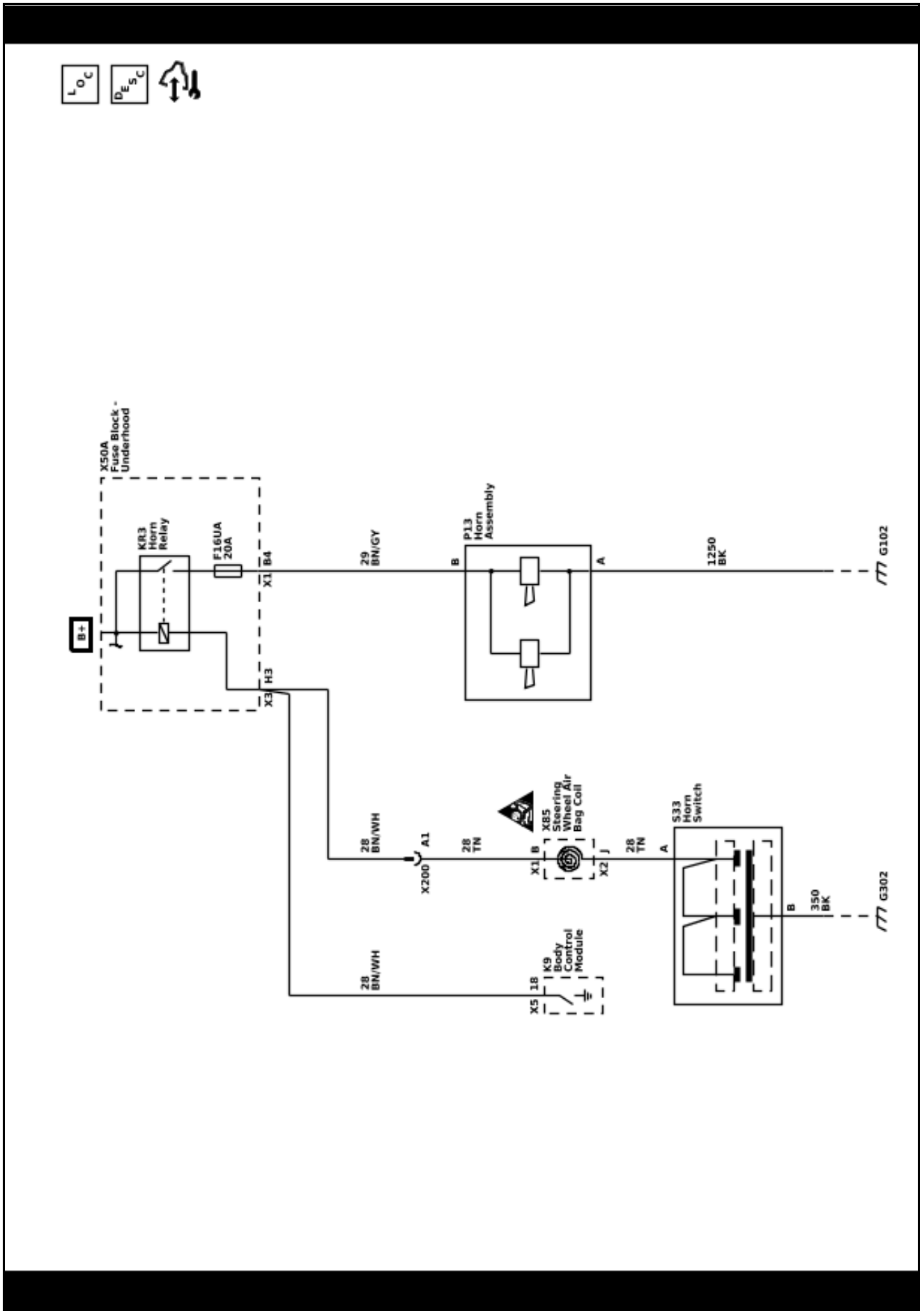
When you turn the ignition to the ON position, battery positive voltage is supplied through the HTD MIR DEFOG fuse to the rear window defogger relay switched input. Ground is for the rear window defogger relay coil is provided by G302. Battery positive voltage and ignition voltage is supplied to the HVAC control assembly for rear window defogger operation. When the rear window defogger switch is depressed, the HVAC control assembly energizes the rear window defogger relay by supplying battery positive voltage to the rear window defogger relay coil. This allows battery positive voltage from the relay switched input through the switch contacts and out the relay switched output to the rear window defogger grids. The HVAC control assembly also illuminates the rear window defogger indicator upon this request. Ground for the left rear window defogger grid is provided by G401. Ground for the right rear window defogger grid is provided by G402.

When you turn ON the ignition and press the rear window defogger switch for the first time, the defogger cycle lasts 10 minutes. Further operation results in 5 minute defogger cycles. The defogger cycle resets to 10 minutes when you cycle the ignition to the OFF position and then back to the ON position.

Horns and Pedestrian Alerts

Schematic and Routing Diagrams

Horn Schematics (Horn Schematics)



Description and Operation

Horns System Description and Operation

System Description

The horn system consists of the following components:

- The HORN fuse
- The Horn relay
- The Horn Contact
- The Horn Assembly
- Body Control Module (BCM)

System Operation

- The vehicle horns are activated whenever the horn switch is depressed.
- The BCM commands the horns ON under any of the following conditions:
  - When the panic button is depressed on the remote control door lock transmitter. For further information refer to Keyless Entry System Description and Operation.
  - When the keyless entry system is used to lock the vehicle, a horn chirp may sound to notify the driver that the vehicle has been locked. The notification feature may be enabled or disabled through personalization. For further information refer to Keyless Entry System Description and Operation.

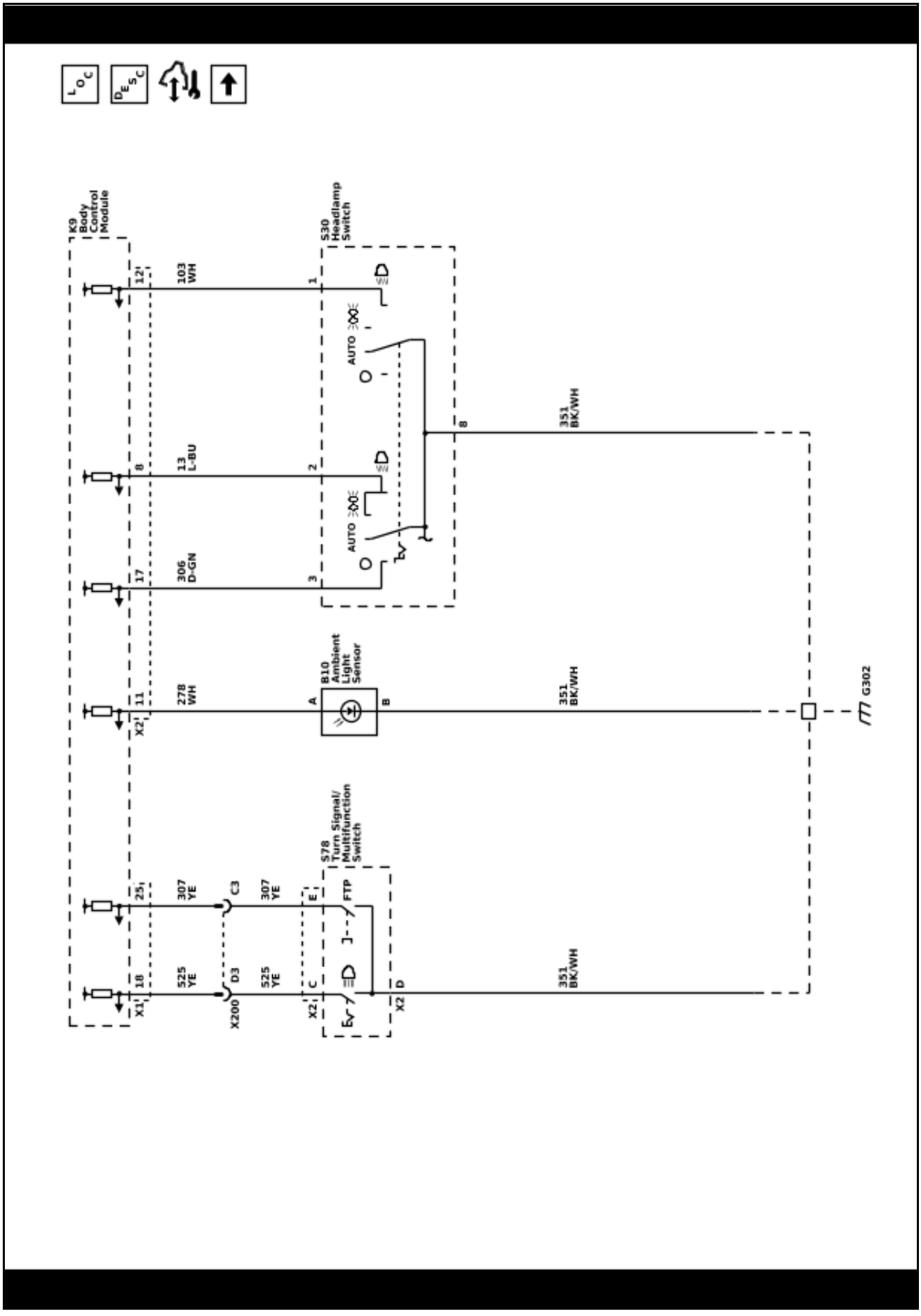
Circuit Operation

Battery positive voltage is applied at all times to the horn relay coil and the horn relay switch. Pressing the horn switch applies ground to the horn relay control circuit. When the horn relay control circuit is grounded, the horn relay is energized and battery positive voltage is applied to the horns through the horn control circuit. The horns sound as long as ground is applied to the horn relay control circuit.

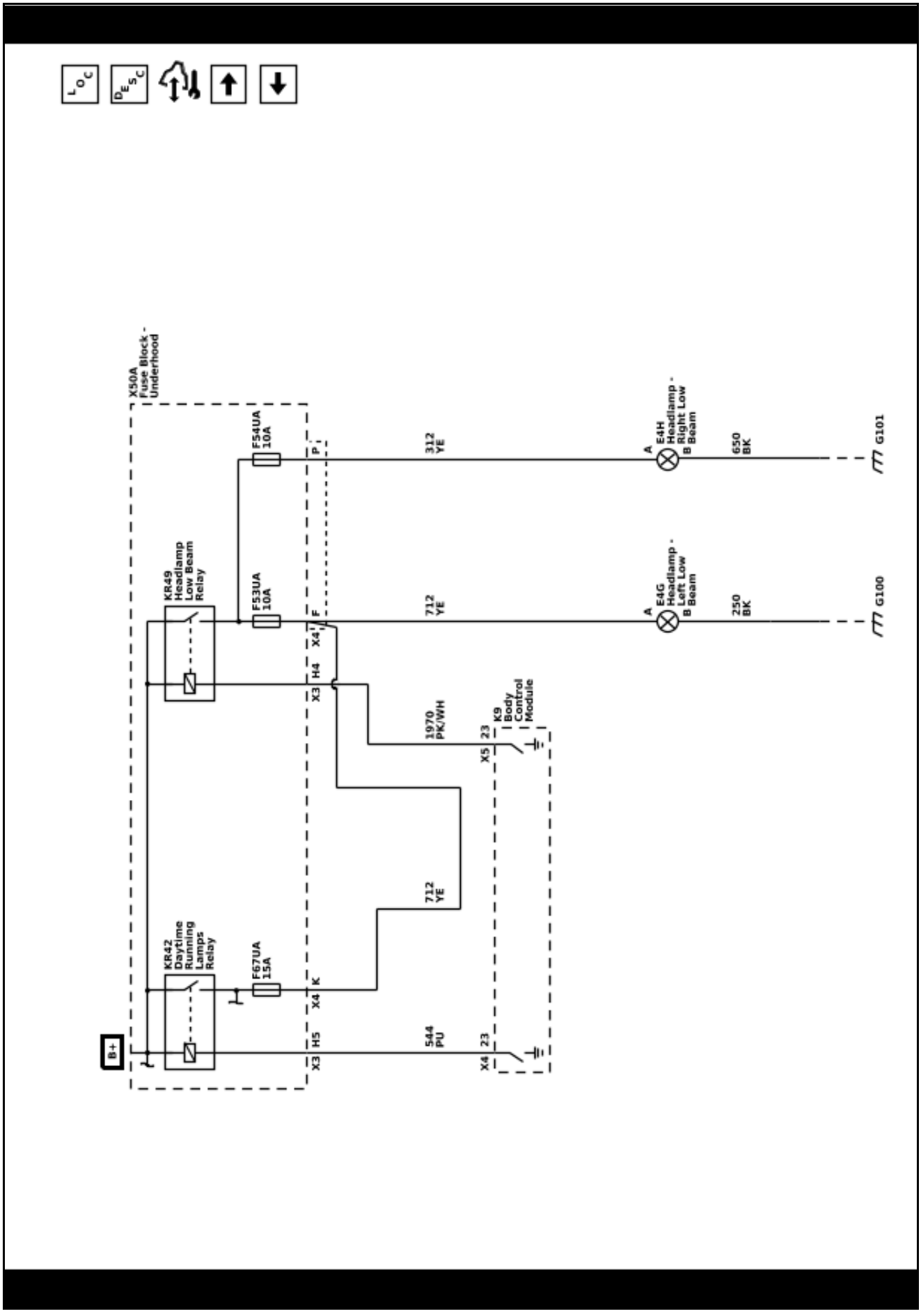
Lighting

Schematic and Routing Diagrams

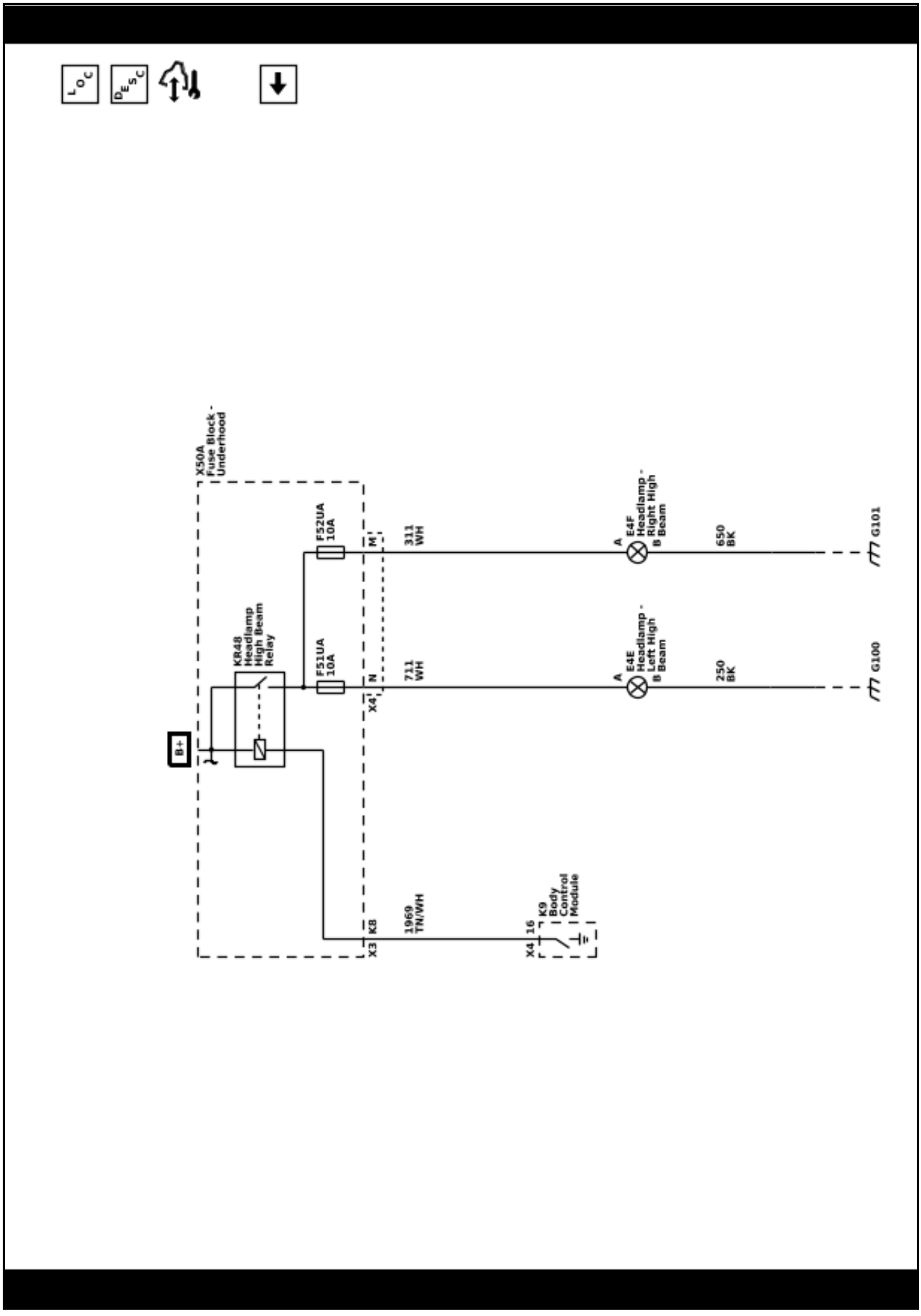
Headlights/Daytime Running Lights (DRL) Schematics (Headlamp and Daytime Running Lamp Controls)



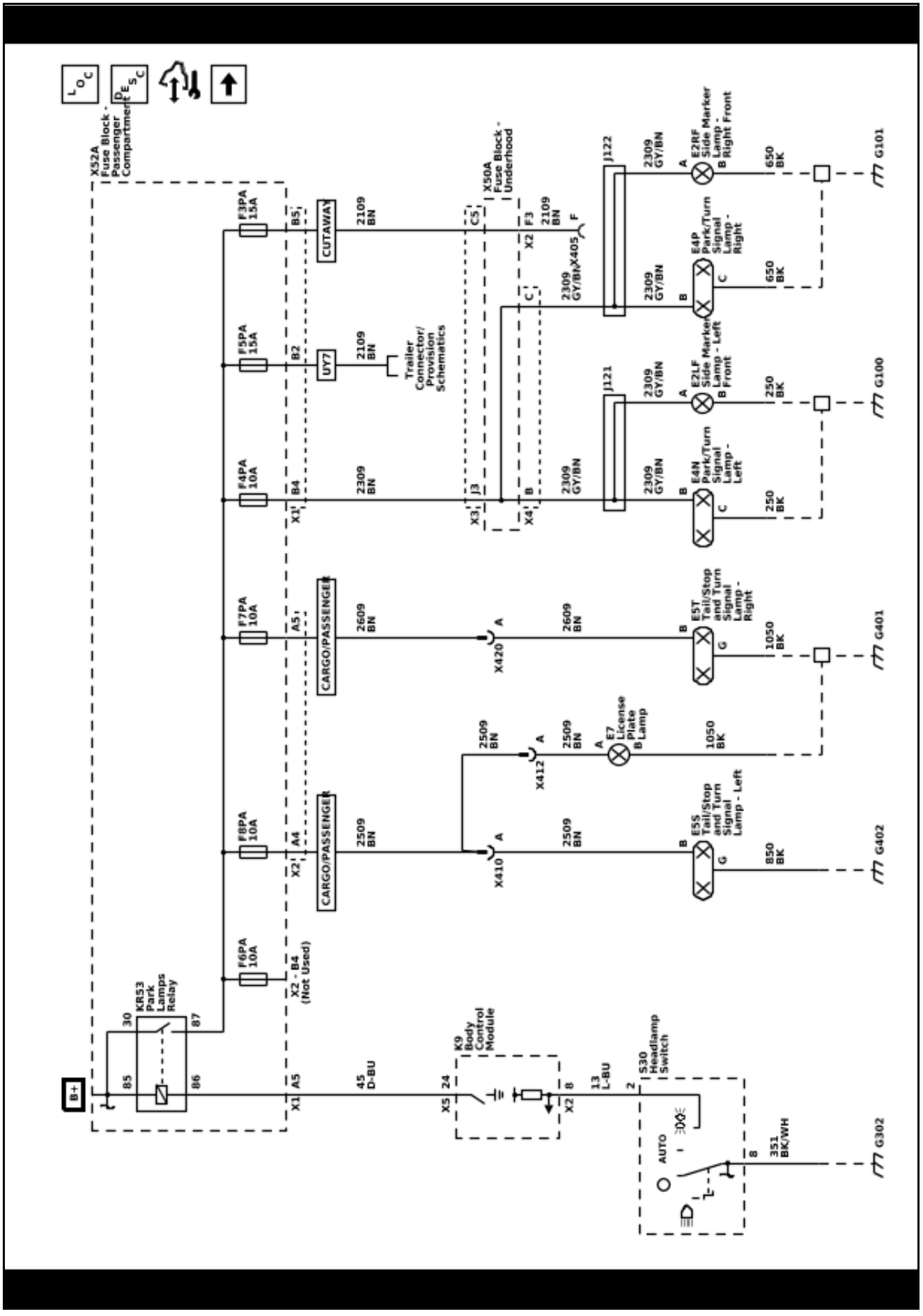
Headlights/Daytime Running Lights (DRL) Schematics (Low Beam and Daytime Running Lights (DRL))



Headlights/Daytime Running Lights (DRL) Schematics (High Beams)



Exterior Lights Schematics (Park Lamp Controls and Park Lamps)



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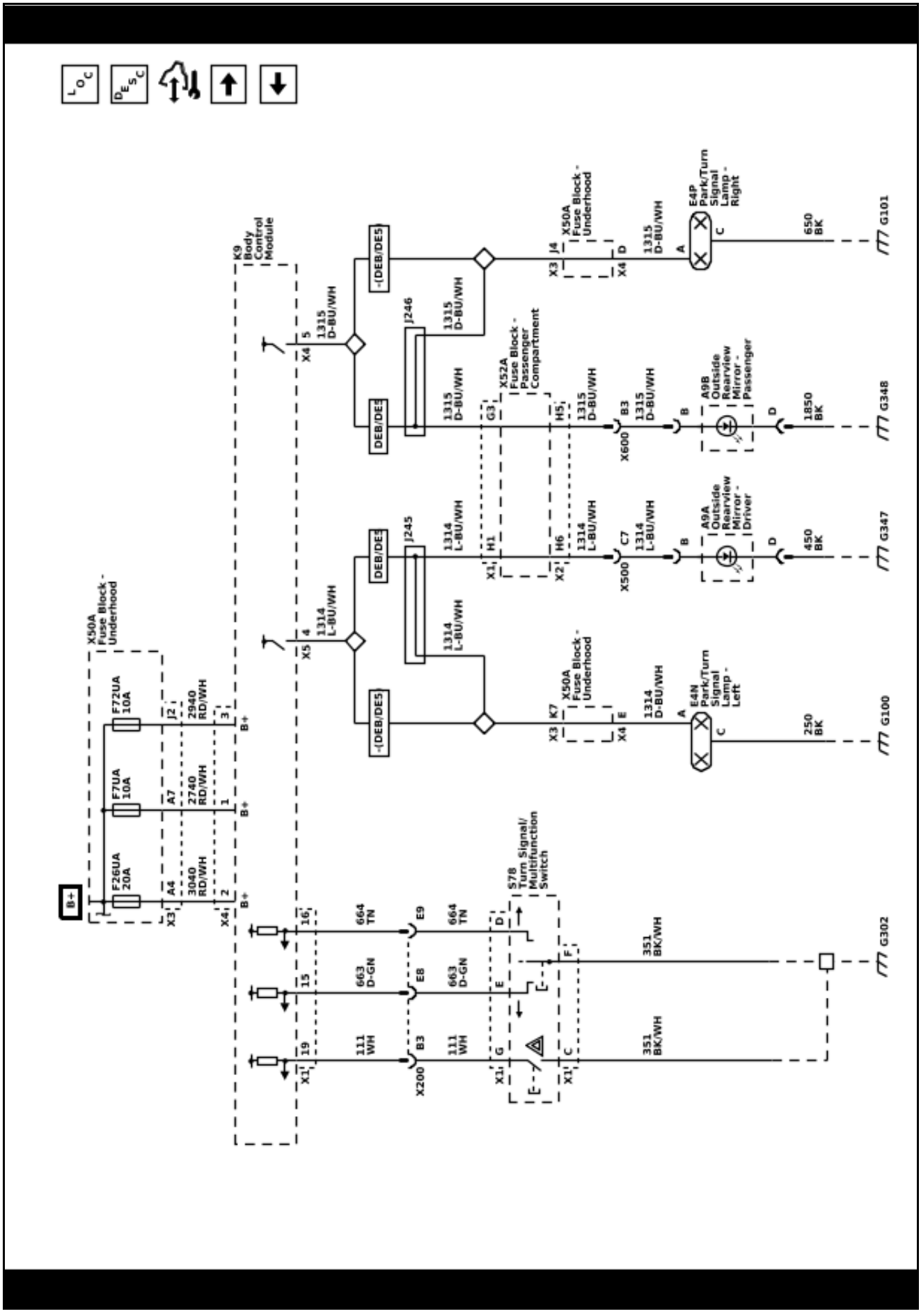
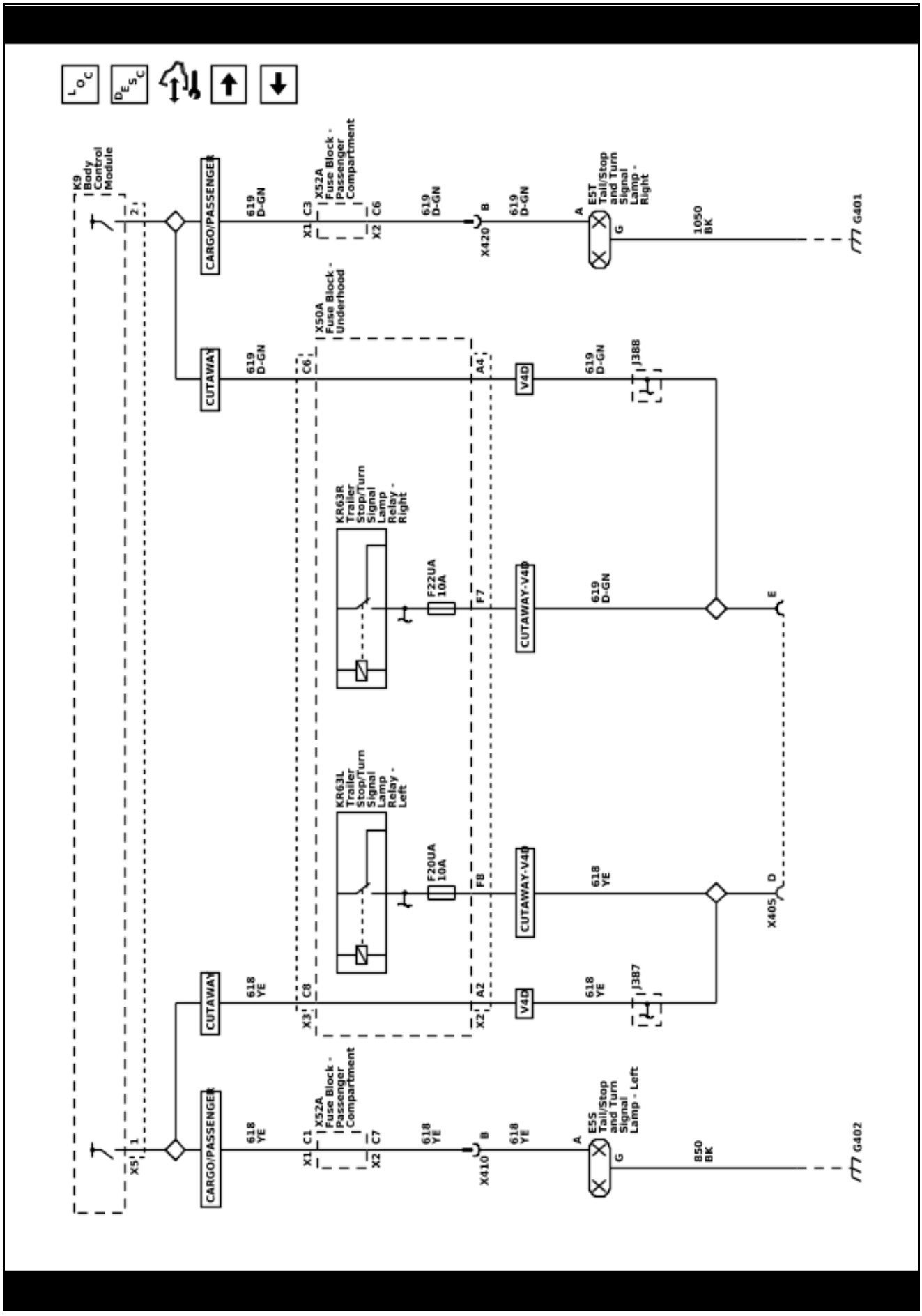
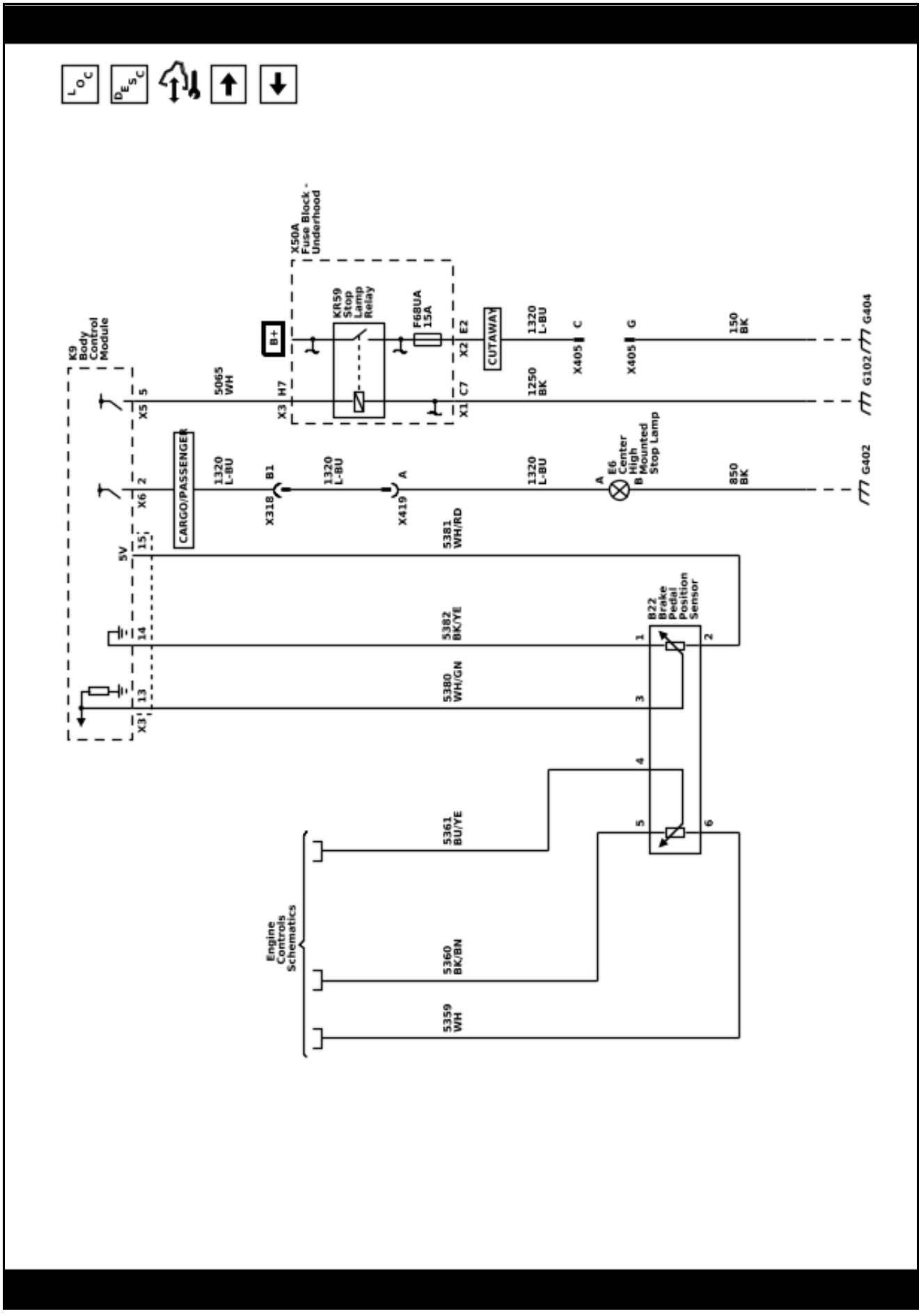
Exterior Lights Schematics (Turn Signal Controls and Front Turn Signal Lamps)



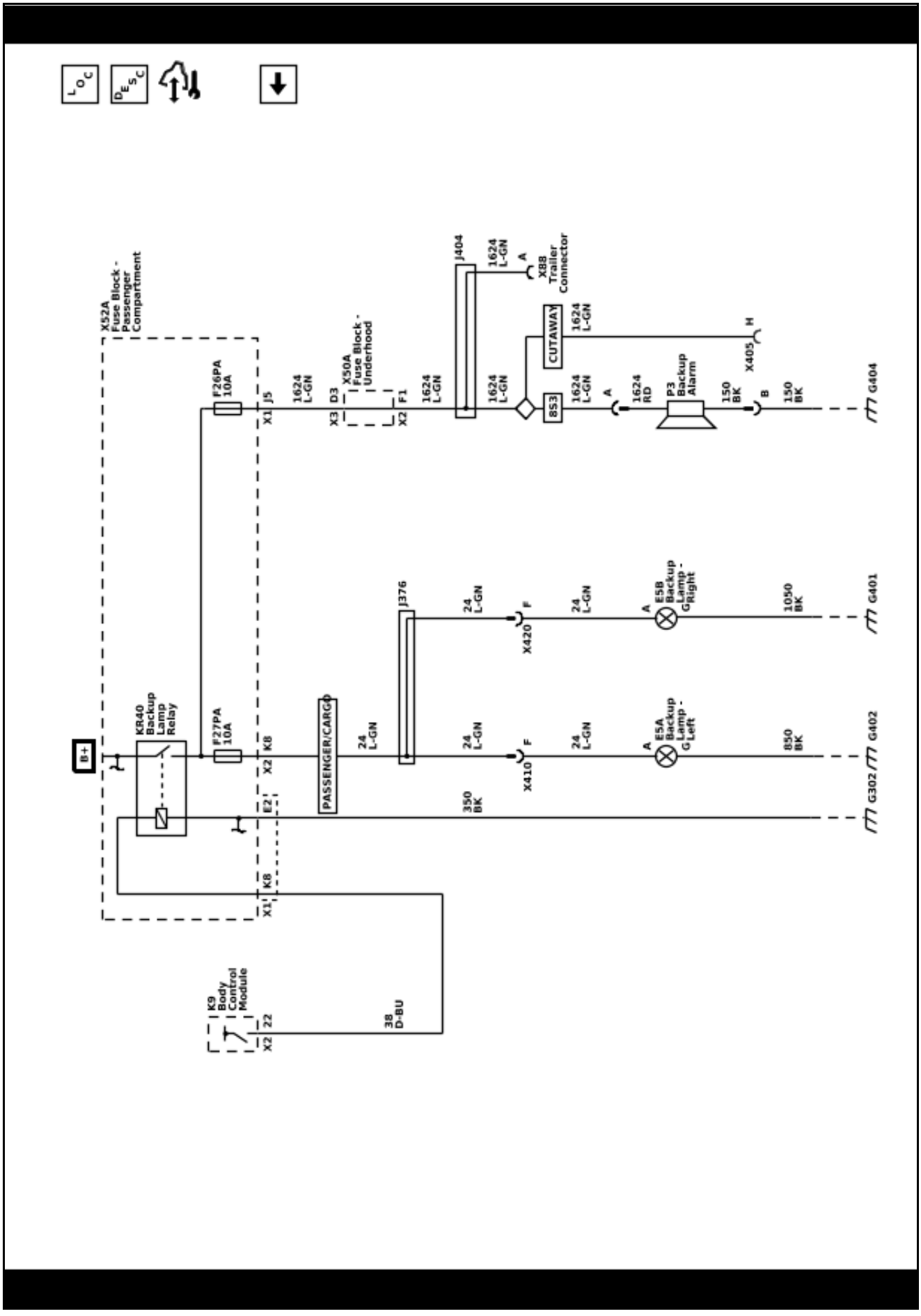
Exterior Lights Schematics (Rear Turn Signal Lamps)



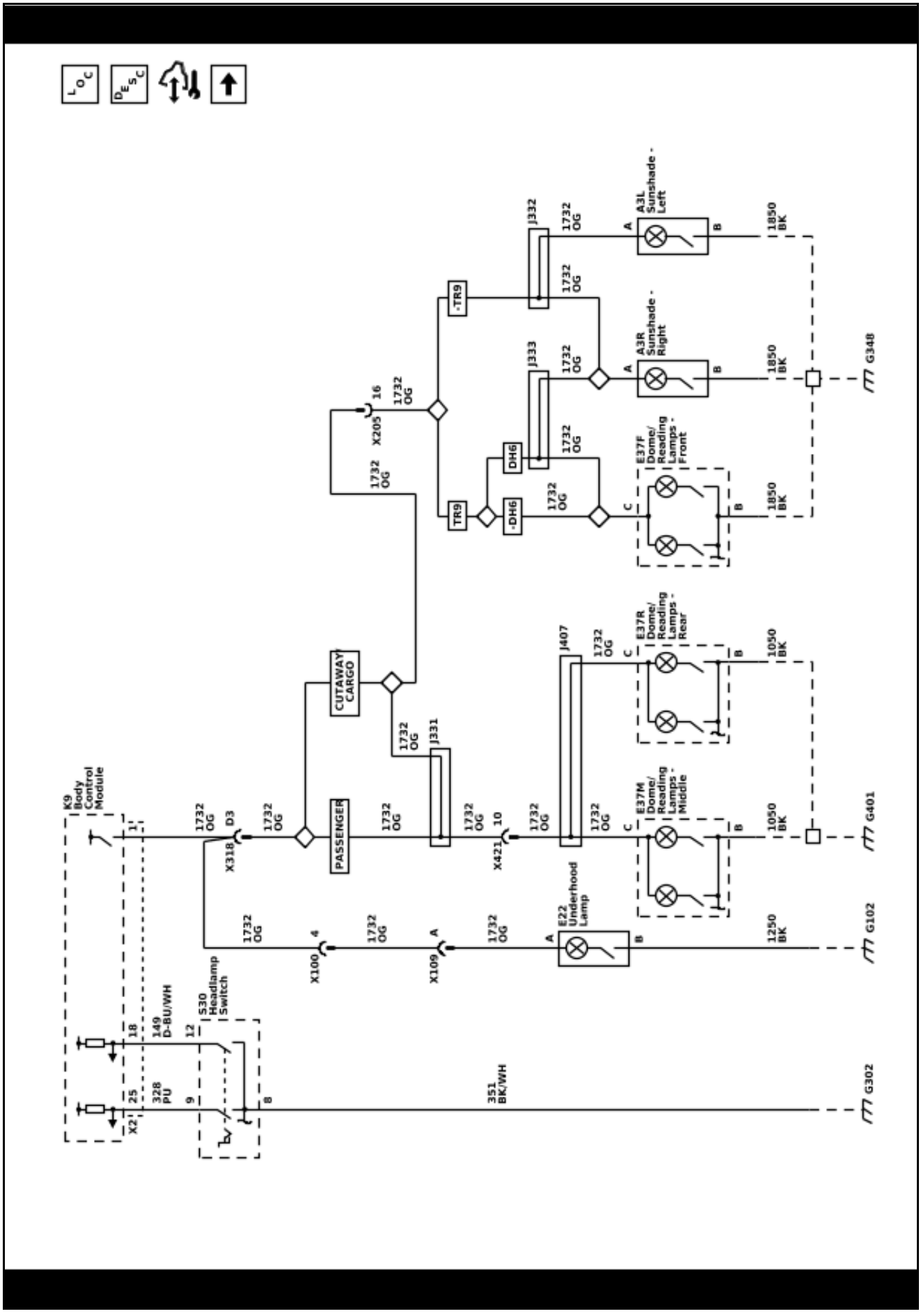
Exterior Lights Schematics (Stop Lamp Controls and CHMSL)



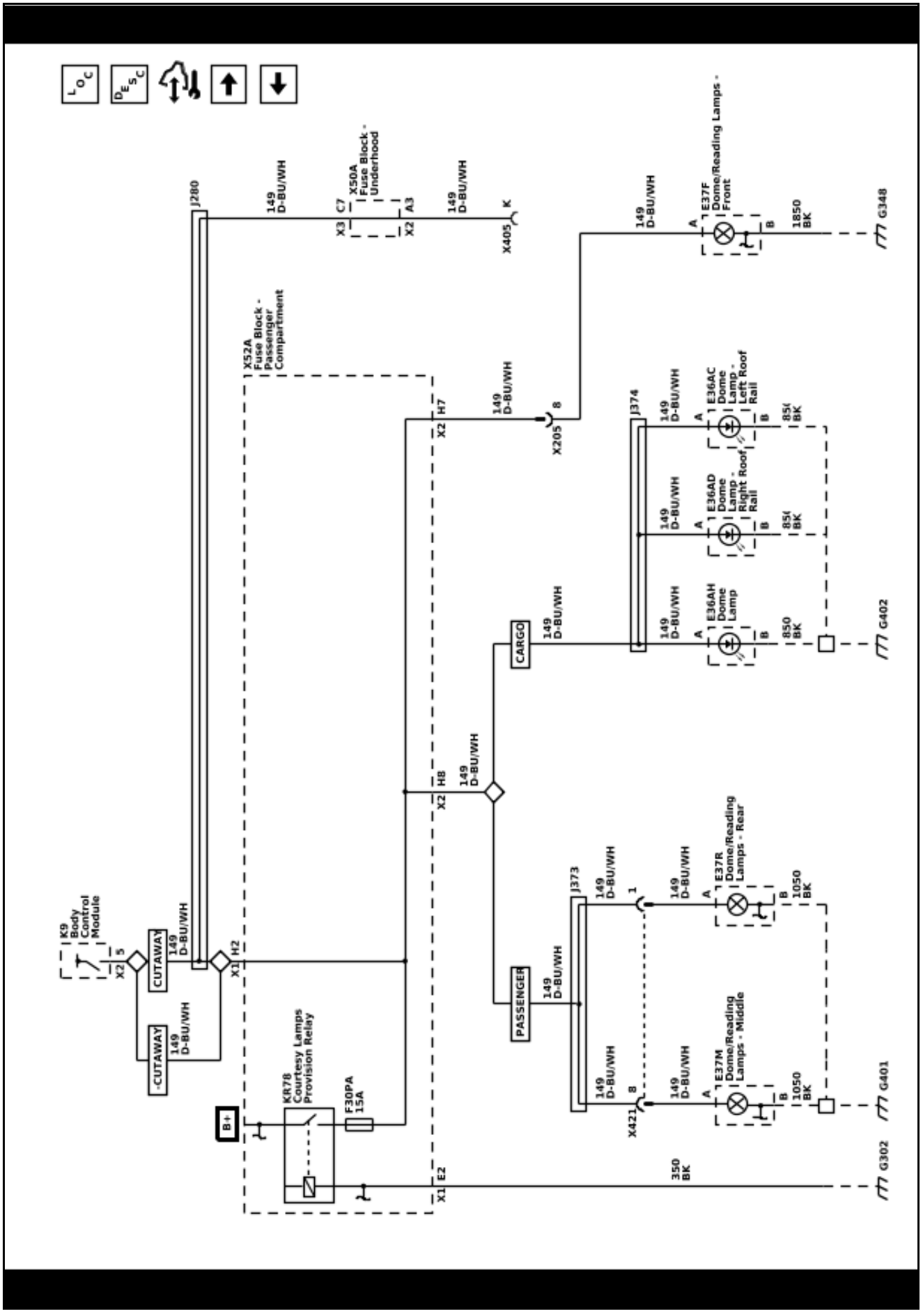
Exterior Lights Schematics (Backup Lamps and Backup Alarm)



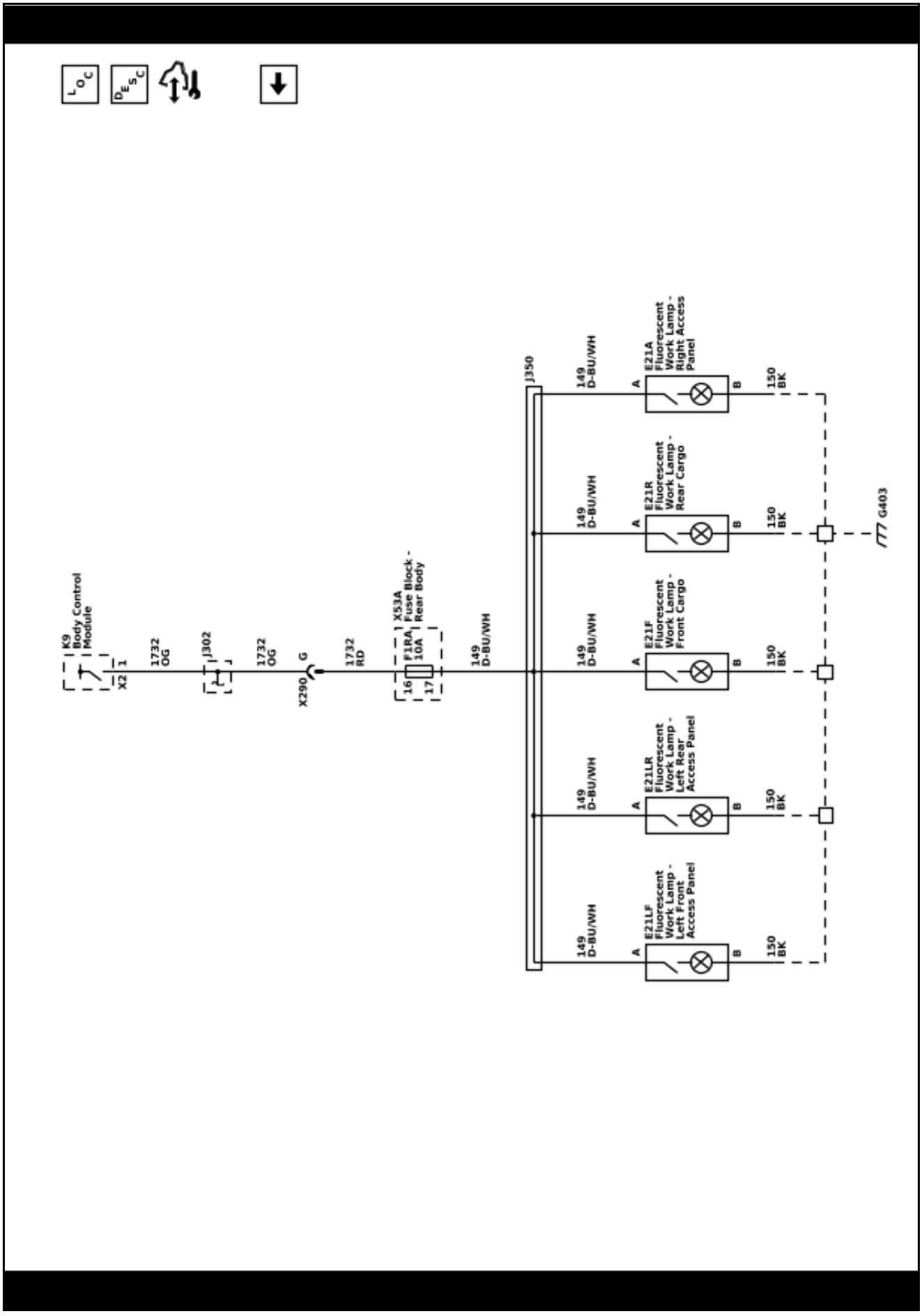
Interior Lights Schematics (Inadvertent Lamp Control)



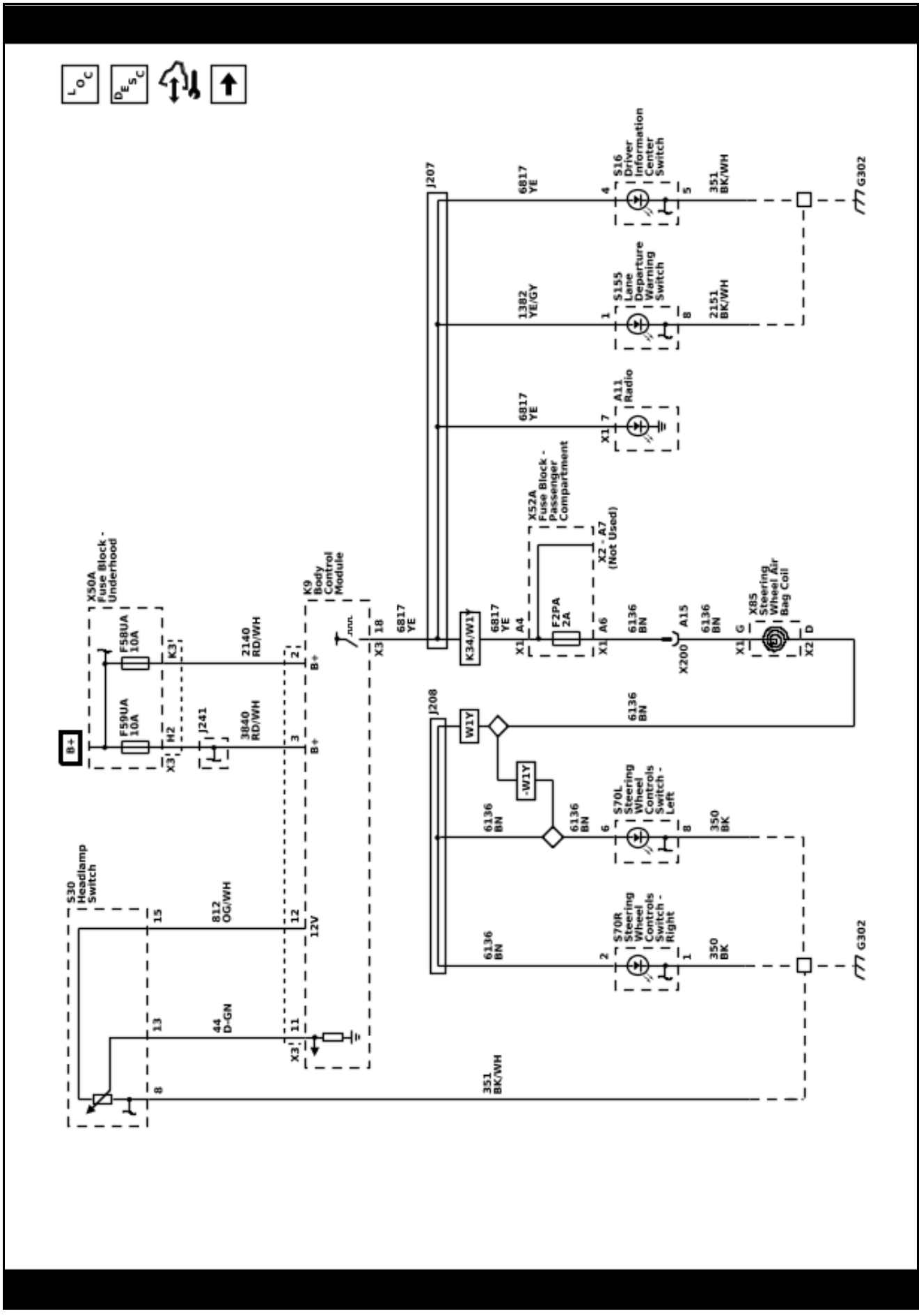
Interior Lights Schematics (Courtesy Lamp Control)



Interior Lights Schematics (Side Access Panel and Cargo Work Lamps (PRP with UF2))



Interior Lights Dimming Schematics (Dimming Controls and LED Dimming)



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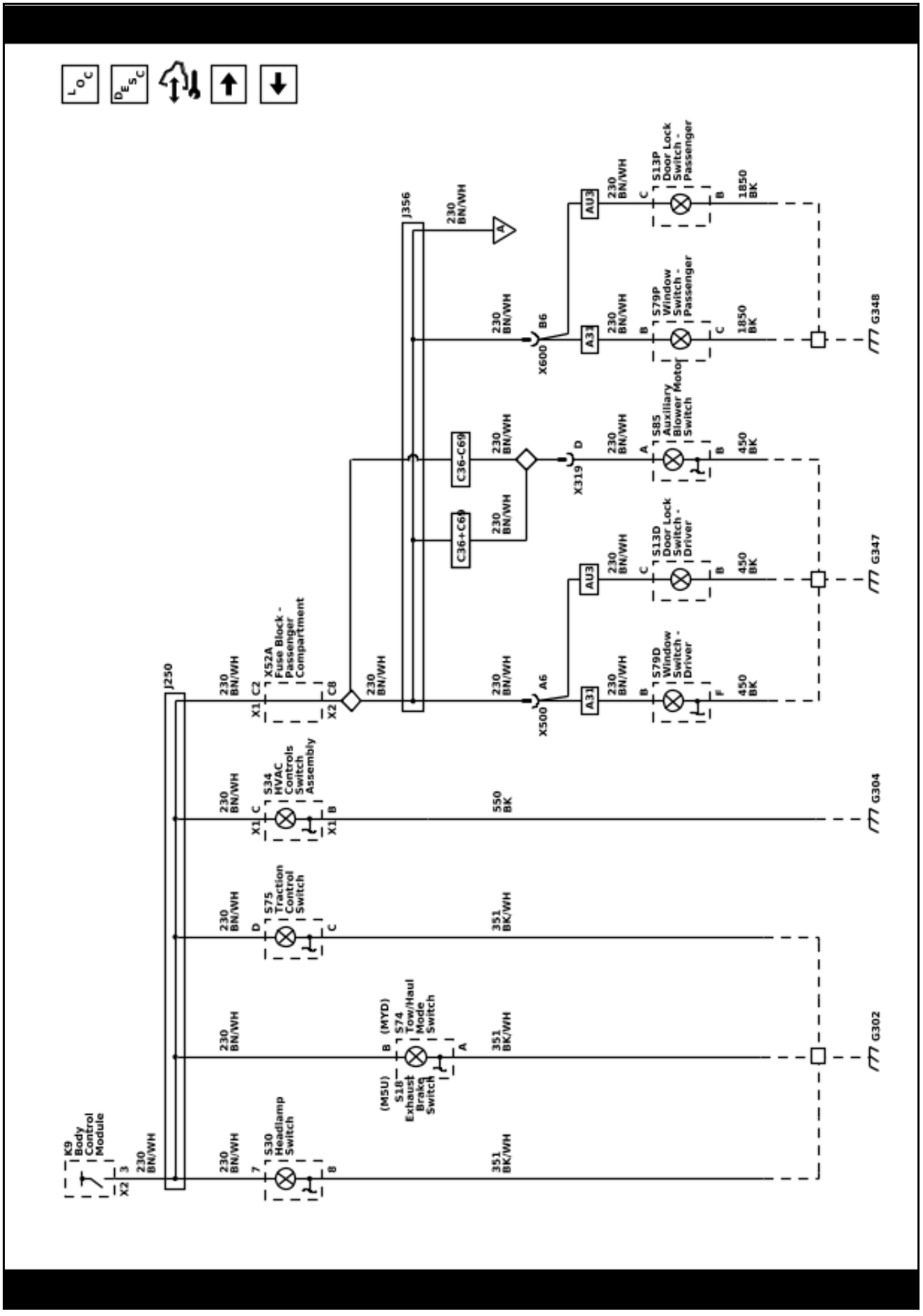
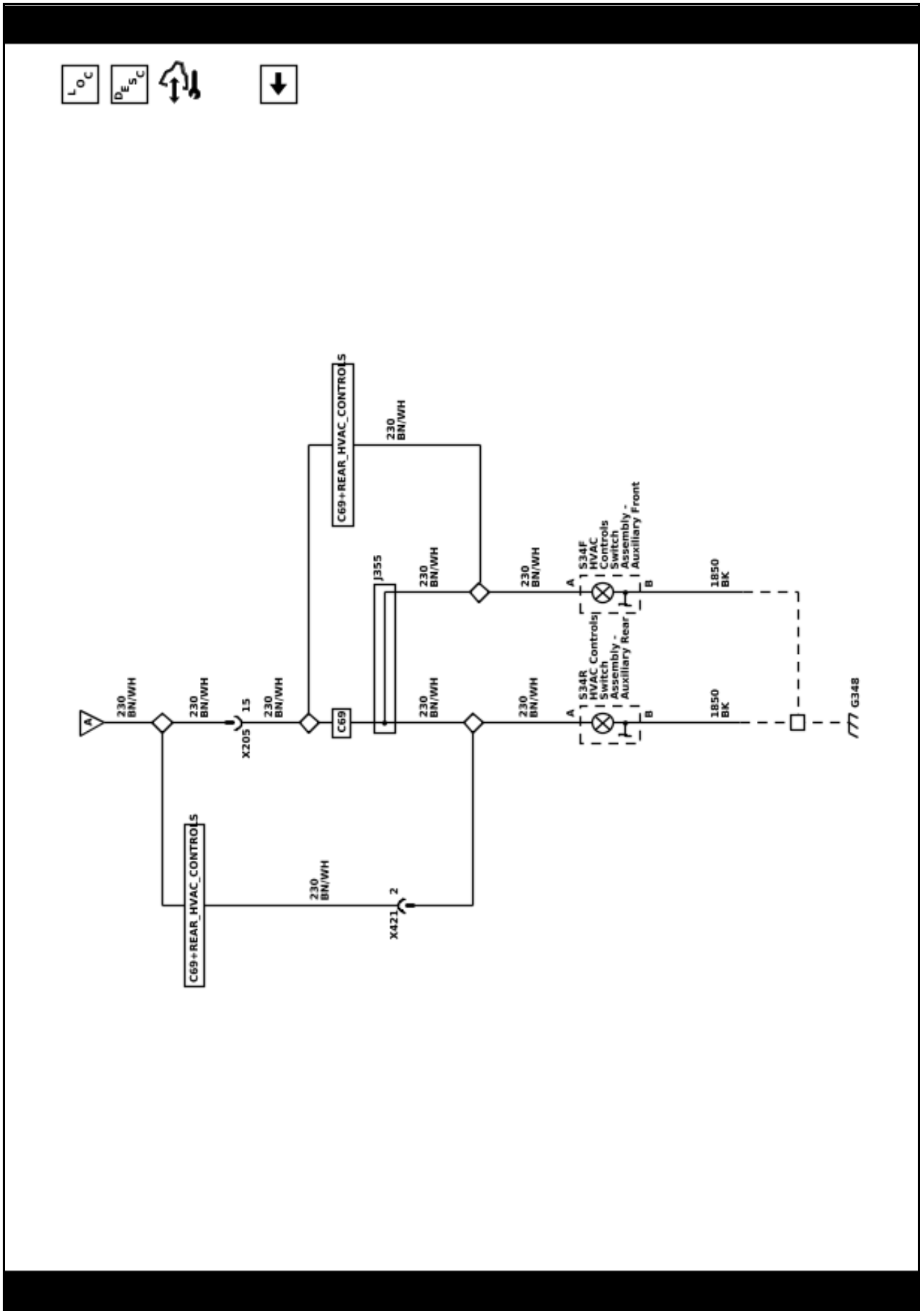
Interior Lights Dimming Schematics (I/P Bulb Dimming (1 of 2))



Interior Lights Dimming Schematics (I/P Bulb Dimming (2 of 2))



Description and Operation
Exterior Lighting Systems Description and Operation

Exterior Lamps

The exterior lighting consist of the following lamps:

- Headlamps
- Daytime running lamps (DRL)
- Park lamps
- Tail lamps
- License lamps
- Marker lamps
- Turn signal lamps
- Stop lamps
- Center high mounted stop lamp (CHMSL)
- Backup lamps

Low Beam Headlamp Operation

The headlamps may be turned ON in 3 different ways:

- When the headlamp switch in the HEAD position for normal operations
- When the headlamp switch is in the AUTO position, for automatic lamp control (ALC)
- When the headlamp switch is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

Battery voltage is applied at all times to the coil and switch sides of the LOW BEAM PCB Relay located in the underhood fuse block. With the headlamp switch in the headlamps ON position, ground is applied through the headlamps ON switch signal circuit to the body control module (BCM) signaling the headlamps ON request. In response to this signal, the BCM applies ground through the low beam relay control circuit energizing the LOW BEAM PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the LT and RT LOW BEAM fuses, and the low beam supply voltage circuits illuminating the low beam headlamps.

High Beam Headlamp Operation

Battery voltage is applied at all times to the coil and switch sides of the HIGH BEAM PCB Relay located in the underhood fuse block. When the headlamp dimmer switch is placed in the high beam position, the headlamp dimmer switch signal circuit to the BCM is pulled low signaling the headlamp high beam request. In response to this signal, the BCM applies ground through the high beam relay control circuit energizing the high beam relay. With the relay energized, battery voltage is applied through the switch side of the relay, the LT and RT HIGH BEAM fuses, and the high beam supply voltage circuits illuminating the high beam headlamps. At the same time the BCM sends a serial data message to the instrument panel cluster (IPC) requesting the IPC to illuminate the high beam indicator.

Flash to Pass (FTP)

When the headlamp dimmer switch is pulled toward the driver, the flash to pass signal circuit to the BCM is pulled low signaling the flash to pass request. The BCM then turns ON the high beam headlamps as described above until the headlamp dimmer switch is released. If the low beam headlamps were ON during FTP operation they will remain ON.

Daytime Running Lamps (DRL) and Automatic Lamp Control (ALC)

The low beam headlamps are used for DRL operation at a reduced intensity. The DRLs will operate only with the ignition ON, the headlamp switch in the AUTO position, and the gear selector out of the park position. No other exterior lamps such as the parking lamps, tail lamps, etc. will be on when the DRL are being used. The instrument panel will not be illuminated either.

DRL operation is determined by the ambient light sensor and controlled by the body control module (BCM). The ambient light sensor is a light-sensitive transistor used to monitor outside lighting conditions. The BCM provides a 5-volt reference signal to the sensor. The sensor will vary this voltage signal between 0.2 and 4.9 volts depending on outside lighting conditions. The BCM monitors the ambient light sensor signal circuit to determine if outside lighting conditions are correct for either DRL or ALC operation. When the BCM determines the conditions are met for DRL operation, it applies ground to the DRL relay control circuit energizing the DRL PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the DRL 1 fuse, the DRL 2 fuse, both low beam headlamp fuses, and the low beam supply voltage circuits illuminating the headlamps at a reduced intensity. Any function or condition that turns on the headlamps will cancel DRL operation.

When the BCM detects low light conditions, it will turn OFF the daytime running lamps and turn ON the low beam headlamps as described above in Low Beam Headlamp Operation. The BCM will also turn ON the low beam headlamps in daylight conditions when the windshield wipers are turned ON.

HDLPS Suggested Indicator

If the park lamps are turned ON manually and the ambient light sensor detects a low light condition then the body control module (BCM) will send a message to the instrument panel cluster (IPC) to display the HEADLAMPS SUGGESTED message.

Lights ON Warning

The body control module (BCM) activates the lights ON warning as requested by the headlamp dimmer switch. The lights ON warning sounds when the following occurs:

- The key is out of the ignition.
- The BCM determines that the drivers door is open, signal is low.
- The BCM determines that the headlamp switch is in the PARK or HEAD position.

Park, Tail, Marker and License Lamps

The park, tail, and marker lamps are turned ON when the headlamp switch is placed in either the HEAD or PARK lamp positions, or anytime the automatic light control (ALC) turns the headlamps ON. When the headlamp switch is placed in the park lamp or headlamp positions, ground is applied through the switch signal circuit to the BCM indicating the park lamp ON request. In response to this signal, the BCM applies ground through the park lamp relay control circuit energizing the PRK LAMP Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the park lamp fuses, and the supply voltage circuits illuminating the park, license, side marker, and tail lamps.

Turn Signal Lamps

The BCM 3, BCM 5, and BCM 6 fuses located in the underhood fuse block supply battery voltage to the body control module (BCM) for turn signal, hazard lamp, and stop lamp operation. Voltage from the BCM 5 fuse used for the front and rear left turn signals, voltage from the BCM 3 for the right front turn signal, while voltage from the BCM 6 fuse is used for the right rear turn signal. When the turn signal switch is place in either the LEFT or RIGHT position, ground is applied through the turn signal switch signal circuit to the BCM indicating the turn signal request. In response to this signal, the BCM applies a pulsating voltage to the front and rear turn signal lamps supply voltage circuits cycling the lamps ON and OFF. The BCM also sends a message via to the instrument panel cluster (IPC) to cycle the turn signal indicator ON and OFF depending on the position of the turn signal switch.

Hazard Lamps

The hazard flashers may be activated in any power mode. When the hazard lamp switch is placed in the ON position, ground is applied through the hazard switch signal circuit to the body control module (BCM) indicating the hazard lamps ON request. In response to this signal, the BCM applies a pulsating voltage though all front and rear turn signal supply voltage circuits cycling the lamps ON and OFF. The BCM also sends a serial data message to the instrument panel cluster (IPC) to cycle both turn signal indicators ON and OFF.

Stop Lamps (cargo/passenger)

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5-volt reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will apply battery voltage to the right and left stop lamp control circuits, transmission control module (TCM), engine control module (ECM), center high mounted stop lamp (CHMSL) control circuit, and trailer brake control module if equipped.

Stop Lamps (cutaway)

The BCM controls the stop lamps based on the input from the stop lamp switch. When the BCM detects the brake pedal is depressed, B+ is applied to the stop lamp relay control circuit energizing the Stop Lamp PCB Relay. With the relay energized, B+ is applied to the stop/turn lamp supply voltage circuits illuminating both stop lamps.

Backup Lamps

When the gear selector is placed in the REVERSE position, the powertrain control module (PCM) sends a serial data message to the BCM indicating the backup lamps ON request. The BCM then applies battery voltage through the backup relay control circuit energizing the BCK/UP LAMP PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the T/LAMP BCK/UP fuse, the AUX/TRLR BCK/UP fuse and the supply voltage circuits illuminating the left and right backup lamps and the backup alarm. The engine may need to be running for the backup lamps to function.

Rear Fog Lamps

The rear fog lamps are located in the rear bumper. The fog lamps will operate only when the ignition in the RUN or CRANK positions. When the rear fog lamp switch is turned ON, ground is applied through the rear fog lamp switch signal circuit to the body control module (BCM) indicating the rear fog lamps ON request. In response to this signal, the BCM applies ground to the rear fog lamp relay control circuit energizing the REAR FOG LP PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the RR FOG LP fuse and the rear fog lamp supply voltage circuit to the left and right rear fog lamps. The BCM sends a serial data message to the instrument panel cluster (IPC) requesting the rear fog lamp indicator be illuminated. The rear fog lamps will deactivate if the headlamps are turned OFF, if the ignition is turned to the OFF position upon a key cycle, or if the driver turns the rear fog lamp switch OFF.

Battery Rundown Protection/ Inadvertent Power

The BCM controls the lighting system through circuits that enable the exterior lamp functions of the park lamps, the head lamps, the fog lamps, and the interior lamps. The BCM will open these enabling circuits 10 minutes after the ignition switch is turned OFF with no lamp switch activity. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this time period, the timer will reset for another 10 minutes.

Interior Lighting Systems Description and Operation

The interior lighting consist of two groups; lamps that may not be manually dimmed (Interior Lamps) and lamps that may be dimmed (Interior Lamps Dimming).

The first group listed below includes lamps that may not be dimmed:

- Front dome/reading lamps
- Middle dome/reading lamps
- Rear dome/reading lamps
- Sunshade Mirror Lamps
- Underhood Lamp

Interior Lamps Features

The interior lamps system features the following functions:

- An illuminated entry feature that illuminates the courtesy lamps when entering the vehicle or activating the remote keyless entry system.
- An illuminated exit feature that illuminates the courtesy lamps when the ignition key has been removed from the ignition.
- An inadvertent power feature that supplies voltage to all interior lamps after the ignition is turned OFF. The inadvertent power feature will deactivate all interior lamps after 10 minutes to prevent battery rundown.
- A theater dimming feature that will slowly dim the interior lamps from full brightness to OFF.
- Individual switches for control of each interior lamp that is not illuminate with the interior lamp switch.

Courtesy Lamps (−YF2/YF7)

When any one of the doors is opened, ground is applied through the door latch door open switch and the door open switch signal circuit to the BCM indicting the door open position. In response to this signal, the BCM then applies battery voltage through the courtesy lamp supply voltage circuits illuminating the courtesy lamps.

Courtesy Lamps (+YF2/YF7)

When any one of the doors is opened, ground is applied through the door latch door open switch and the door open switch signal circuit to the BCM indicting the door open position. In response to this signal, the BCM then applies battery voltage to the courtesy lamp relay control circuit energizing the UPFITTR CTSY LAMPS PCB Relay. With the relay energized. battery voltage is applied through the switch side of the relay and the supply voltage circuits illuminating the courtesy lamps.

Courtesy Lamps Manual Operation

The courtesy lamps can be manually turned ON by the IP dimmer switch. When the dimmer switch is placed in the DOME position, ground is applied through the dimmer switch and the courtesy lamp switch ON signal circuit to the BCM indicating the courtesy lamps ON request. In response to this signal, the BCM then applies battery positive voltage through the courtesy lamp supply voltage circuits illuminating the courtesy lamps listed above. The courtesy lamps ON operation of the dimmer switch will override any BCM operation of the interior lamps already in progress.

Keyless Entry Interior Illumination

When the remote function actuator transmitter is used to unlock the doors, the BCM receives a door-unlock signal. The BCM must have inputs that indicate that the ignition switch is OFF, the courtesy lamp switch is OFF, and all the doors are closed. The BCM will then illuminate the courtesy lamps and will remain illuminated for approximately 25 seconds after the door is closed. If the door locks are activated to the LOCK position, or if the ignition switch is turned to either the RUN or START position, the BCM will turn OFF the courtesy lamps immediately.

Courtesy/Illuminated Exit

The illuminated exit feature will activate the courtesy lamps when the key IN input of the BCM transitions from an active state to an inactive state (removing the ignition key). When the key is removed from the ignition, the key IN input to the BCM becomes inactive. The BCM will illuminate the courtesy lamps for approximately 25 seconds.

Theater Dimming

The theater dimming feature that will slowly dim the interior lamps from full brightness to OFF. The following actions will over ride the theater dimming feature causing the courtesy lamps to deactivate immediately if no other BCM function commands the courtesy lamps ON:

- A transition from active to inactive of the interior lamps switch, turning OFF the interior lamps switch
- A LOCK command from the remote keyless entry system
- A last door closed locking function, locking and closing all the doors

Underhood Compartment Lamp

The BCM supplies battery positive voltage through the inadvertent power courtesy lamps circuit to the underhood compartment lamp. When the hood is opened, the underhood compartment lamp switch closes to ground and the lamp illuminates.

Dome/Reading Lamps

The dome/reading lamp is a duel purpose lamp that can be illuminated two different ways. First, the lamp can be turned ON during courtesy lamp operation as described above. Second, the lamps can be turned ON individually for reading lamp operation by the lamp switch. The BCM supplies battery voltage through the inadvertent power courtesy lamp circuit to the dome/reading lamp for reading lamp operation only.

Sunshade Vanity Mirror Lamps

The BCM supplies battery voltage through the inadvertent power courtesy lamps circuit to the left and right vanity mirror lamps. When the vanity mirror cover on the sunshade is opened, the vanity mirror lamp switch is closed to ground and the lamp illuminates.

Interior Lamps Dimming

The second interior lighting group includes lamps which may be dimmed. This group may use a combination of vacuum fluorescent (VF) illumination, LED illumination and incandescent lamps.

- Headlamp switch
- Tow/haul switch
- Traction control switch
- HVAC control module
- Driver window switch
- Driver power door lock switch
- Auxiliary blower motor switch
- Front passenger window switch
- Front passenger door lock switch
- Front auxiliary HVAC control assembly

- Rear auxiliary HVAC control assembly
- Steering wheel controls
- Inflatable restraint I/P module disable switch
- Driver information center (DIC) display switch
- Radio

When the ignition switch is turned to the RUN position, the instrument panel cluster (IPC), radio VF display, and the HVAC control assembly turns ON at maximum brightness. When the headlamp switch is in the PARK or HEADLAMP ON position, all incandescent and LED back lighting turn ON at the dimming level indicated by the instrument panel (I/P) dimmer switch. The dimmer switch is used to increase and decrease the brightness of the interior backlighting components. The BCM supplies a voltage reference through the I/P dimming voltage reference circuit to the interior lamp dimmer switch, which is part of the headlamp switch. When the dimmer switch is placed in a desired brightness position, reference voltage is applied through the dimmer switch rheostat and the I/P lamps dimmer switch signal circuit to the BCM. The BCM interprets this voltage signal, then applies a pulse width modulated (PWM) voltage through the I/P lamps supply voltage circuits and the LED dimming supply circuit to all related interior backlighting lamps illuminating them to the desired level of brightness.

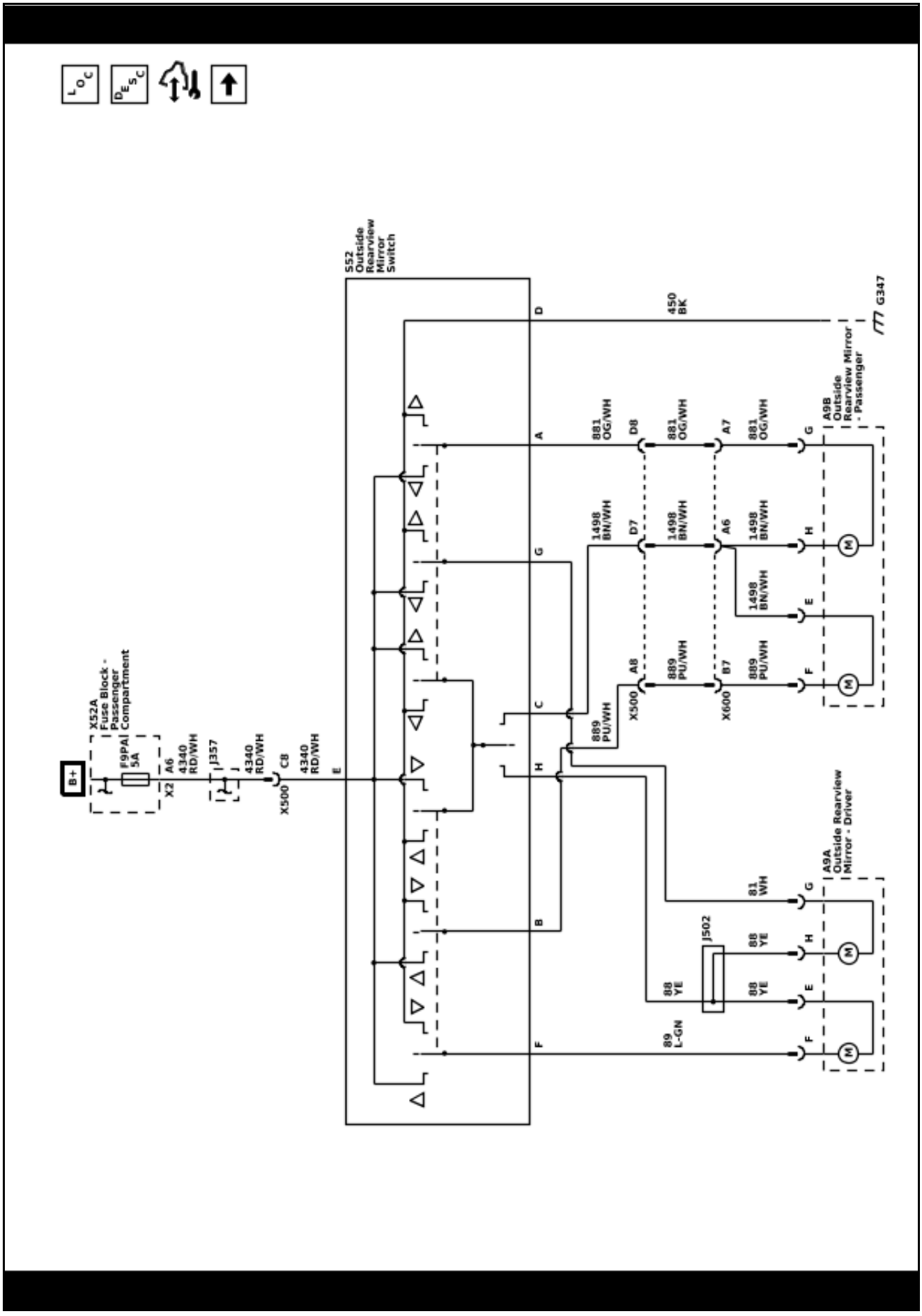
Battery Rundown Protection / Inadvertent Power

The BCM controls the lighting system through circuits that enable the exterior lamp functions of the park lamps, the head lamps, the fog lamps, and the interior lamps. The BCM opens these enabling circuits 10 minutes after the ignition switch is turned OFF with no lamp switch activity. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this time period, the timer resets for another 10 minutes.

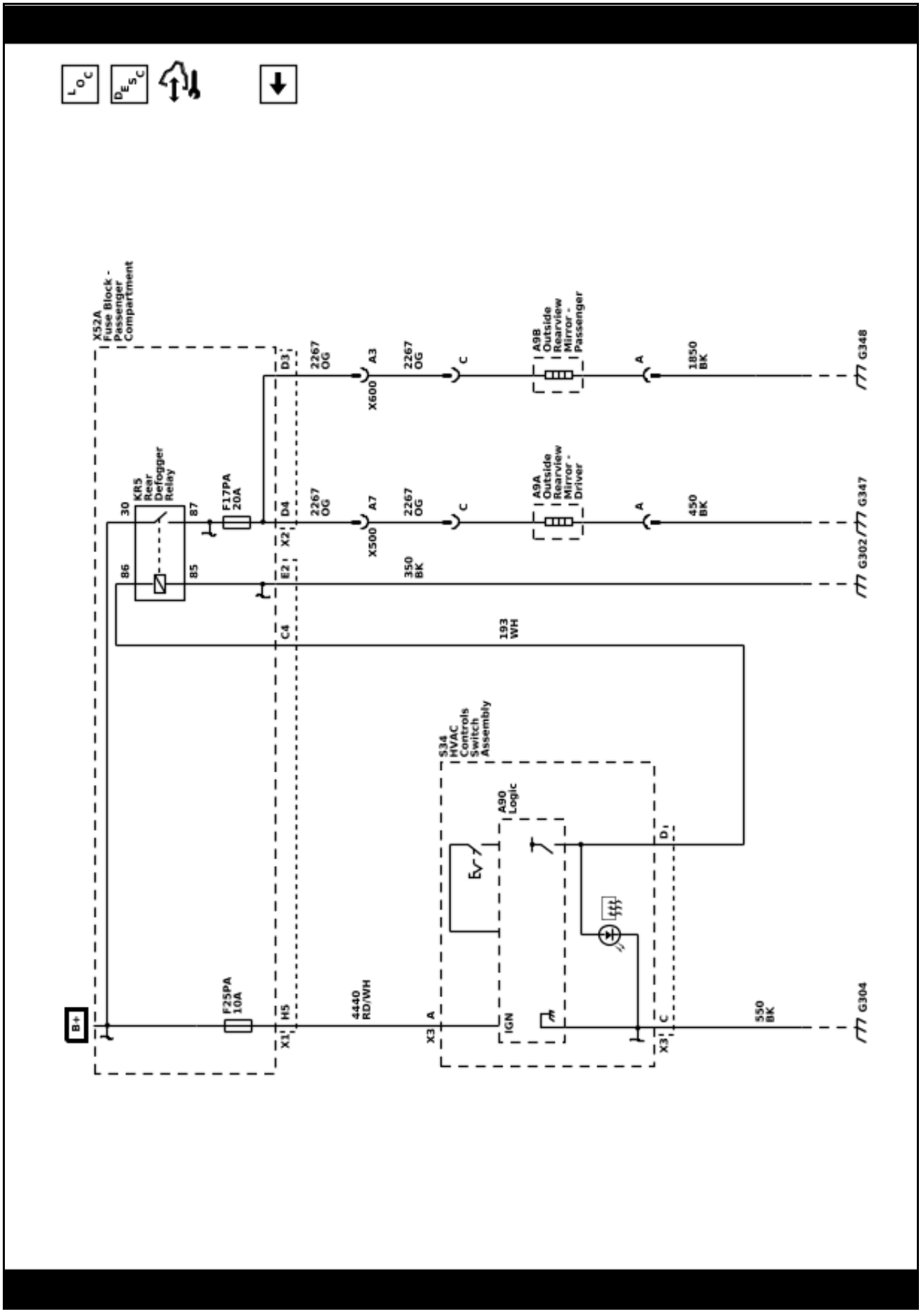
Mirrors

Schematic and Routing Diagrams

Outside Rearview Mirror Schematics (Pan and Tilt (DEB or DE5))



Outside Rearview Mirror Schematics (Heated Mirrors (DEB or DE5))



Description and Operation

Outside Mirror Description and Operation

Outside Mirror System Components

The power mirror system consists of the following components:

- Power mirror switch
- Selector switch
- Left outside power mirror
- Right outside power mirror
- OSRVM 10A fuse
- HVAC control module
- Left outside power mirror
- Right outside power mirror

Each of the outside power mirrors contains two reversible motors. The vertical motor operates the up and down directions and the horizontal motor operates the left and right directions. Each of the power mirror motors are circuit breaker protected.

Power Mirror System Controls

The power mirror switch incorporates a mirror select switch and a four position mirror direction switch.

The mirror select switch allows the operator to select the mirror to be moved by rotating counterclockwise to the L position, left outside power mirror, or rotating clockwise to the R position, right outside power mirror.

The mirror direction switch is a 4 position switch that allows the operator to move the selected mirror up, down, left or right.

Power Mirror System Operation

The power mirror switch receives power through the battery supply voltage circuit and the OSRVM fuse. The power mirror switch also receives a constant ground.

The four positions of the direction switch have dual switch contacts. Each of the contacts are connected to opposing sides of the appropriate power mirror motors through the selector switch. The selector switch interrupts or completes these circuits depending on the position of the selector switch (L or R).

If the selector switch is placed in the L position and the up switch is depressed, battery voltage will be supplied to the left outside power mirror vertical motor through the left mirror motor up direction circuit and return to the power mirror switch through the mirror motor common circuit then to ground and the mirror will move up. If the down switch is depressed, the common circuit supplies battery voltage and the left mirror motor up direction circuit completes the path to the power mirror switch then to ground and the mirror will move down.

The remainder of the mirror functions operate in the same manner as described above. The thing to remember is, that by placing the power mirror switch in opposing positions (left/right or up/down) will reverse the polarity of the mirror motor, utilizing the same circuits and the power mirror will move accordingly.

Heated Mirror System Controls

The heated mirror system is activated by depressing the rear window defogger switch, which is part of the HVAC control module. For further information on the rear window defogger operation, refer to *Rear Window Defogger Description and Operation on page 2-6*.

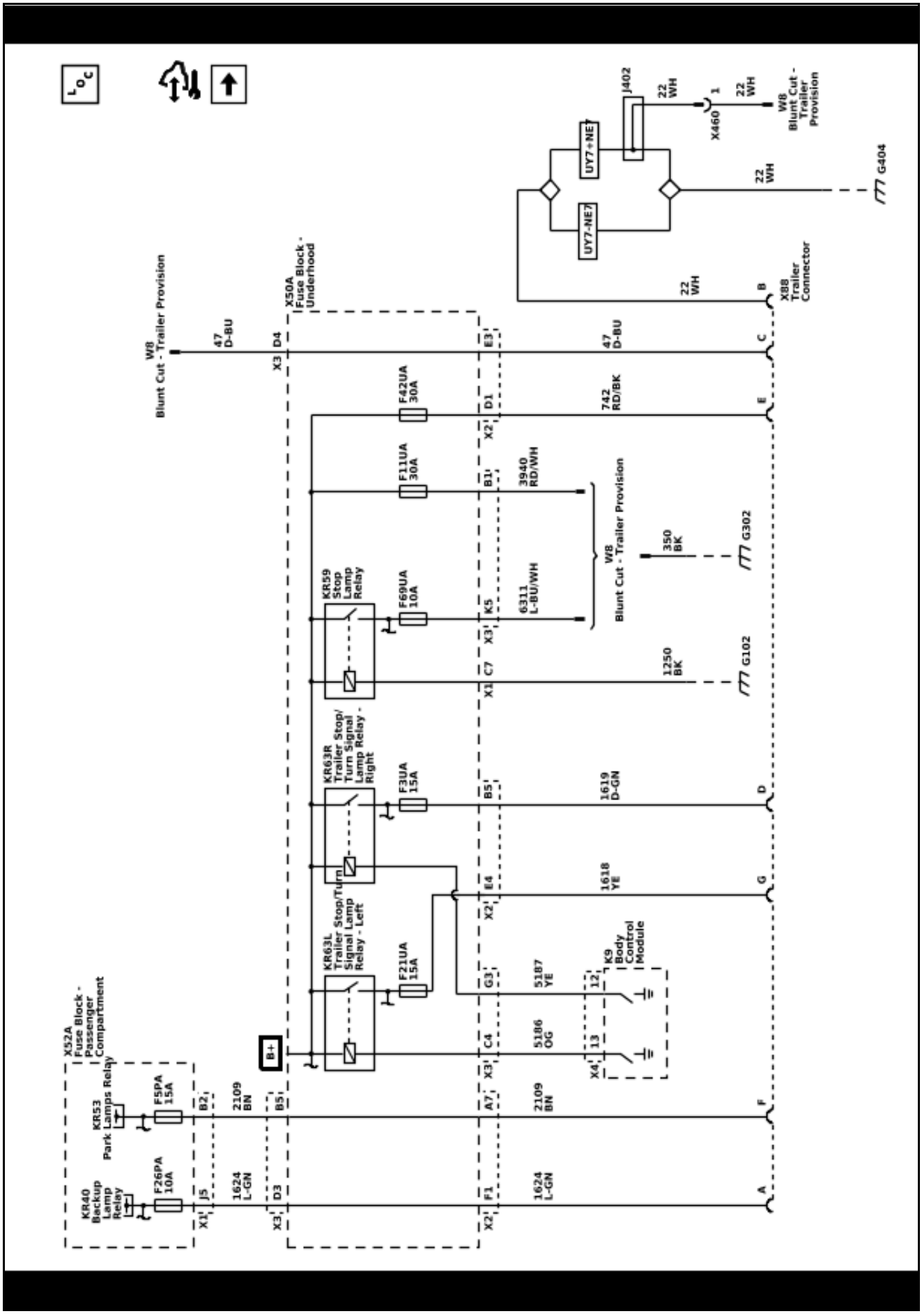
Heated Mirror System Operation

The heated mirror system operates in parallel to the rear window defogger. Each outside rearview mirror contains a heating element that is connected to a constant ground source. When the rear window defogger system is active, battery voltage is available to the outside rearview mirrors through the heated mirror supply voltage circuit. The mirrors will heat up to remove ice, snow or frost and will automatically deactivate when the rear defogger system has timed out, approximately 10 minutes.

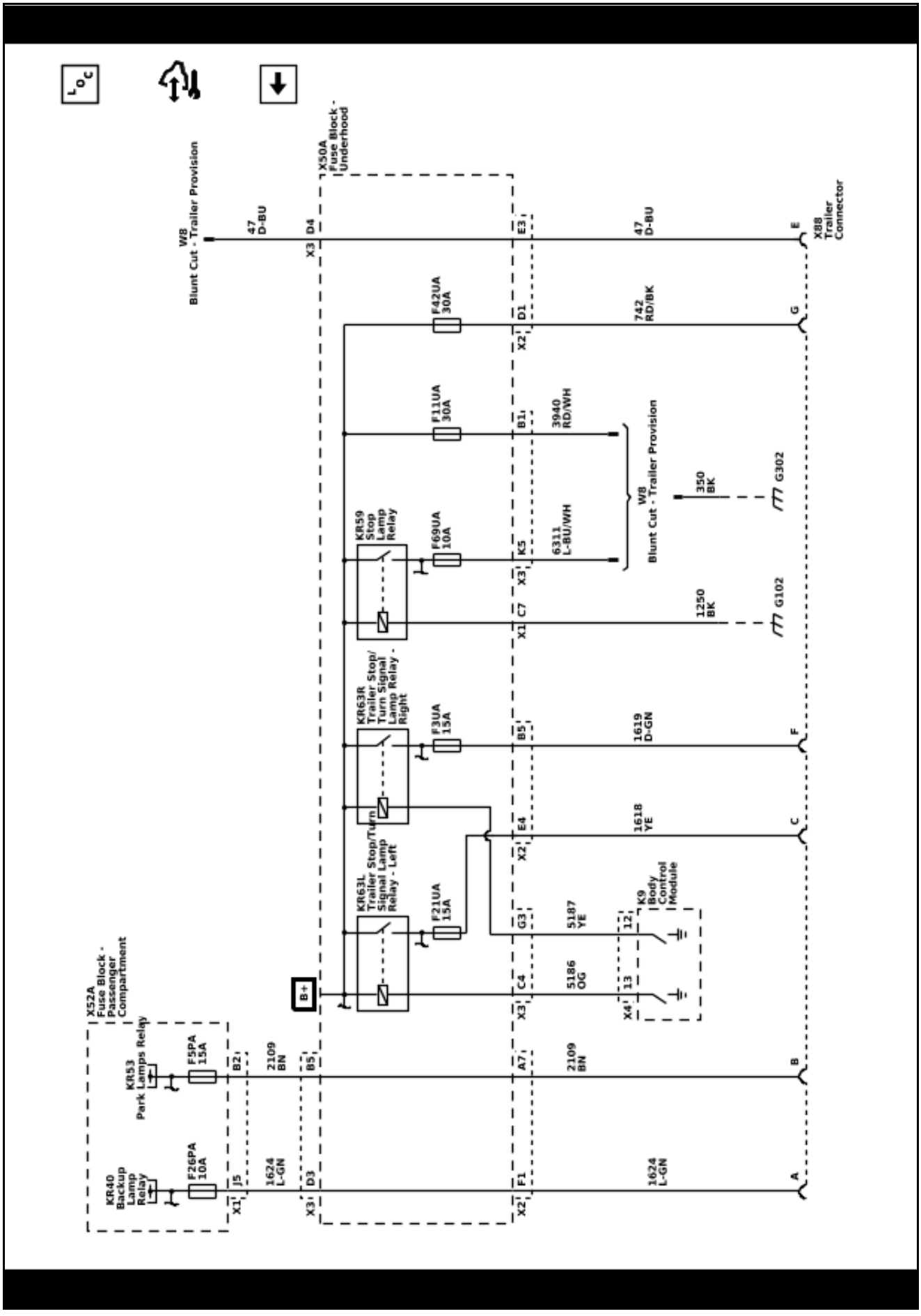
Trailering Systems

Schematic and Routing Diagrams

Trailering Systems Schematics (Trailer Connector/Provision (UY7 without NE7))



Trailering Systems Schematics (Trailer Connector/Provision (UY7 with NE7))



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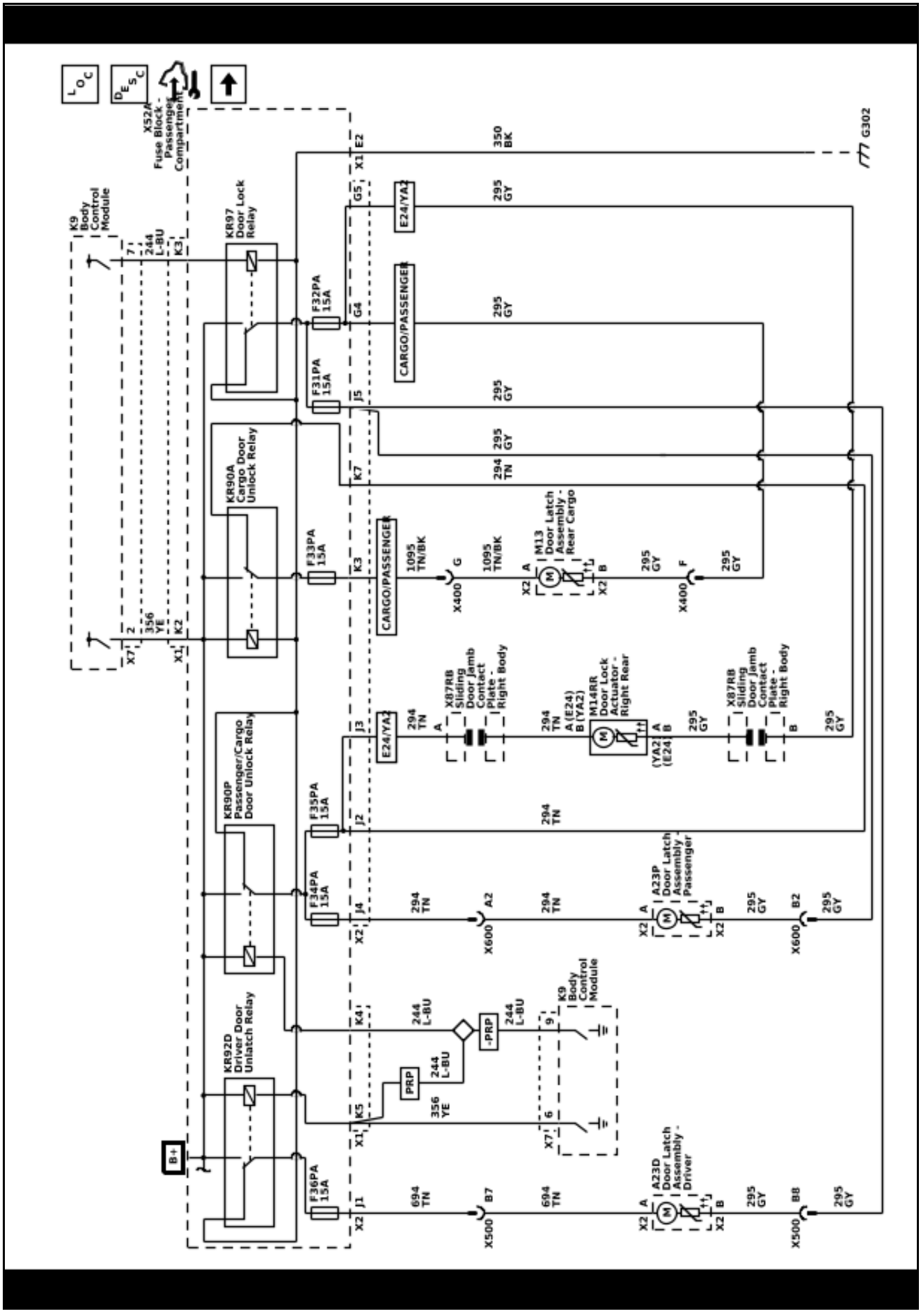
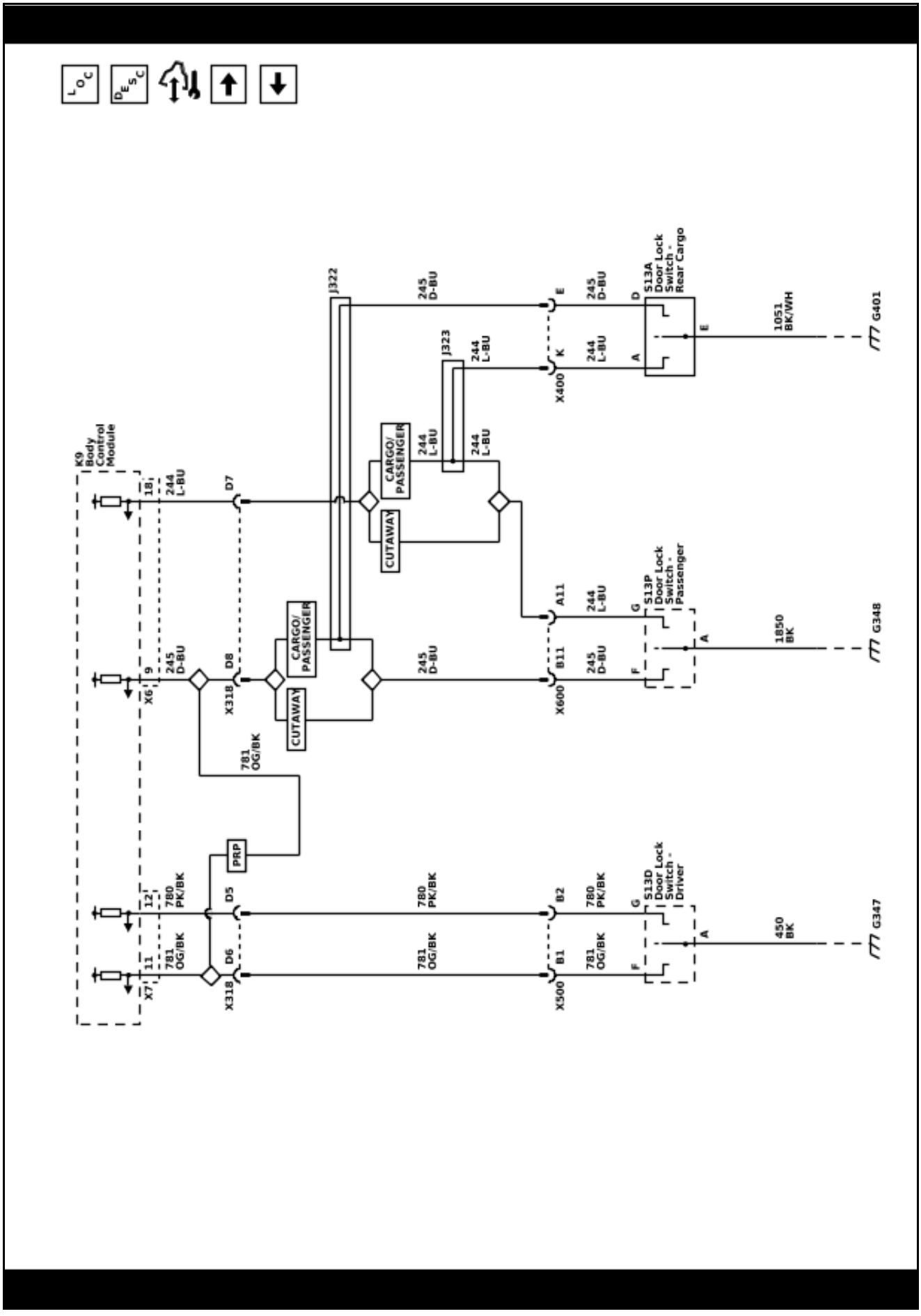
Vehicle Access

Schematic and Routing Diagrams

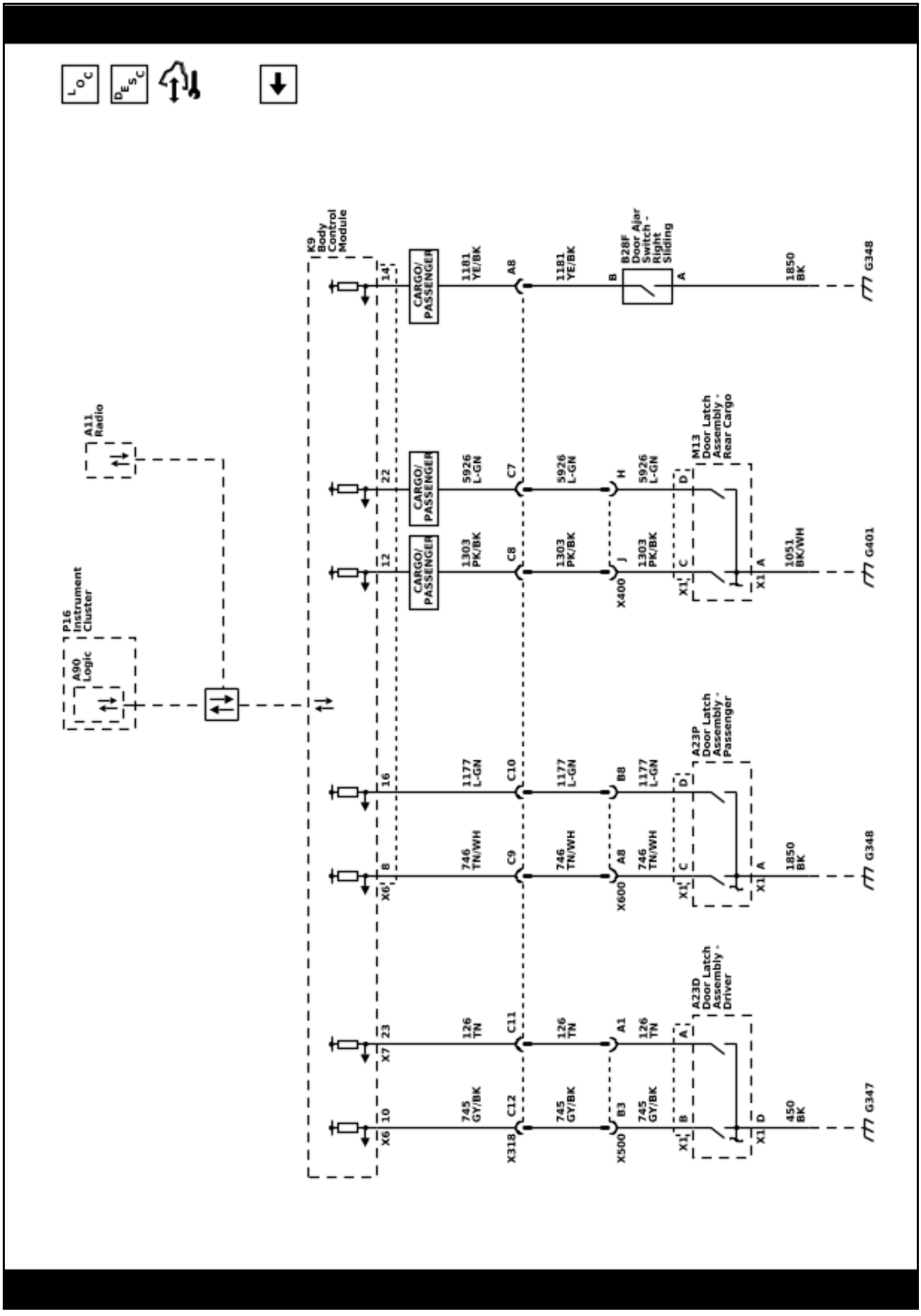
Door Lock/Indicator Schematics (Lock/Unlock Control)



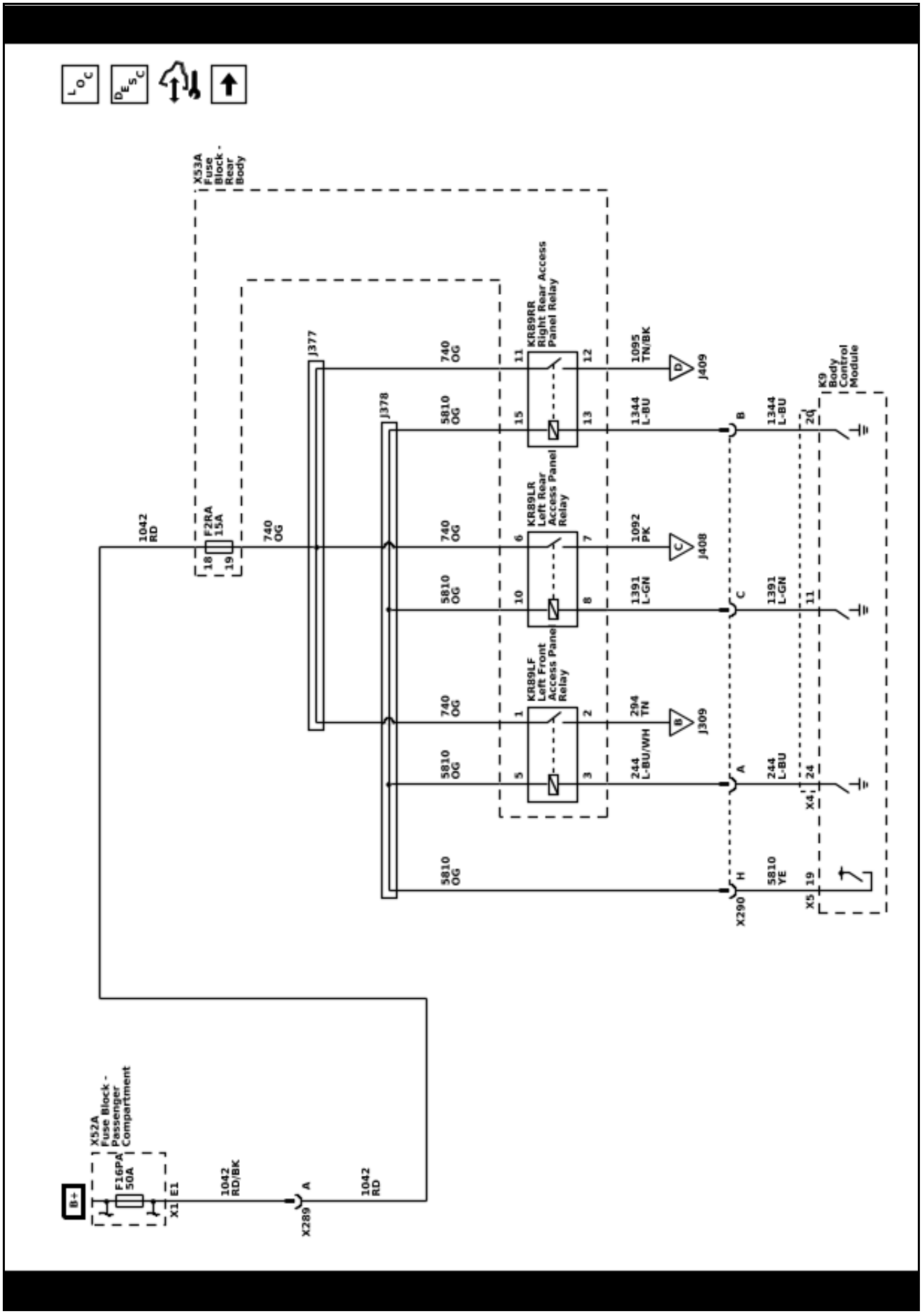
Door Lock/Indicator Schematics (Door Lock Switches (AU3))



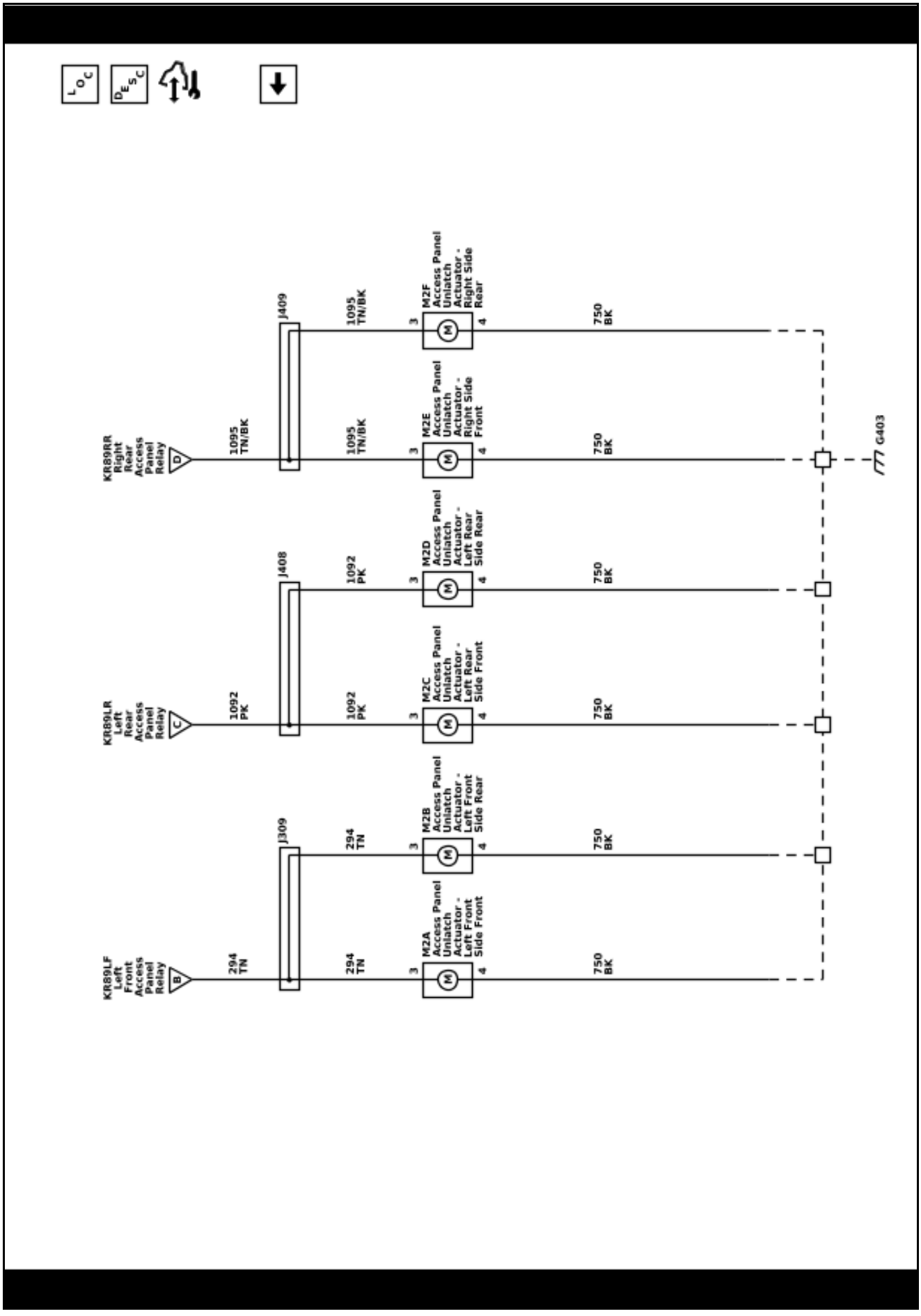
Door Lock/Indicator Schematics (Door Ajar Switches)



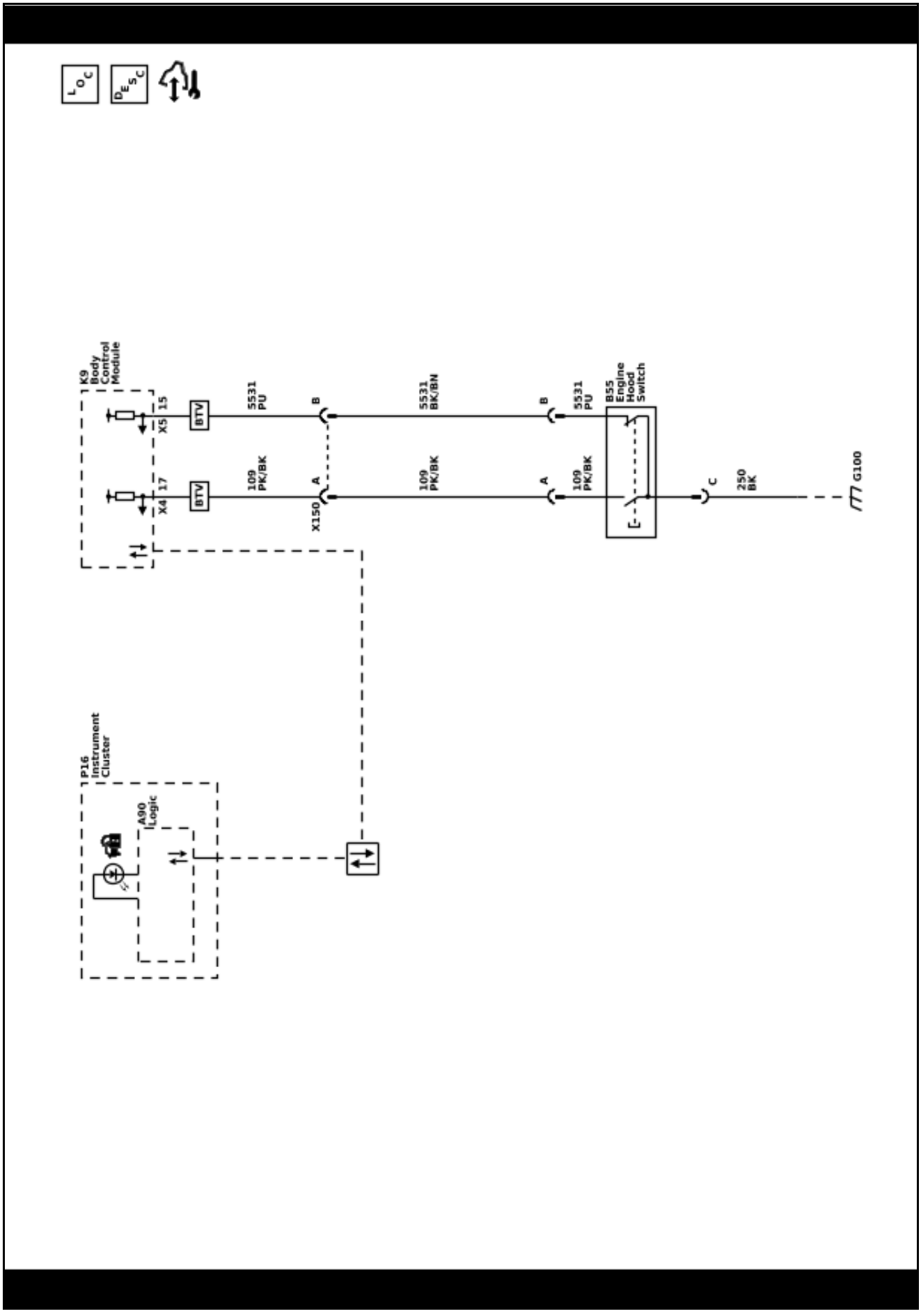
Release Systems Schematics (Side Access Panel Relay Controls (PRP))



Release Systems Schematics (Side Access Panel Actuators (PRP))


LOC
DESC
KR89LF Left Front Access Panel Relay
KR89LR Left Rear Access Panel Relay
KR89RR Right Rear Access Panel Relay
B
C
D
294 TN
1092 PK
1095 TN/BK
J309
J408
J409
M2A Access Panel Unlatch Actuator - Left Front Side Front
M2B Access Panel Unlatch Actuator - Left Front Side Rear
M2C Access Panel Unlatch Actuator - Left Rear Side Front
M2D Access Panel Unlatch Actuator - Left Rear Side Rear
M2E Access Panel Unlatch Actuator - Right Side Front
M2F Access Panel Unlatch Actuator - Right Side Rear
750 BK
G403
5483080

Hood Latch Schematics (Hood Latch)



Description and Operation

Access Panel Description and Operation

The access panel entry system is a supplementary vehicle entry device. Radio frequencies or discharged batteries may disable the system.

The access panel entry system allows you to operate the following components:

- The Left Front Access Panel if equipped
- The Left Rear Access Panel
- The Right Rear Access Panel

Pro/Access models use the key fob to activate up to 3 access panels depending on the cargo door option:

- One access panel on the right side of the vehicle.
- One access panel on the left side of vehicles equipped with left side cargo doors.
- Two access panels on the left side of vehicles not equipped with left side cargo doors.

The access panel entry system has the following main components:

- The transmitters
- The remote control door lock receiver (RCDLR).
- The body control module (BCM).

This vehicle is not equipped with remote keyless entry system (RKE). The transmitter is used exclusively to operate the access panels. When you press any button on a programmed k transmitter, the transmitter sends a signal to the RCDLR. The RCDLR sends a class 2 message to the body control module (BCM) which activates the appropriate access panel relay, releasing the panel.

Rolling Code

The access panel entry system uses rolling code technology. Rolling code technology prevents anyone from recording the message sent from the transmitter and using the message in order to gain entry to the vehicle. The term, rolling code, refers to the way that the keyless entry system sends and receives the signals. The transmitter sends the signal in a different order each time. The transmitter and the RCDLR are synchronized to the appropriate order. If a programmed transmitter sends a signal that is not in the order that the RCDLR expects, then the transmitter is out of synchronization. This occurs after 256 presses of any transmitter button when it is out of range of the vehicle.

Door Ajar Indicator Description and Operation

Door Ajar Indicator System Components

The door ajar indicator system consists of the following components:

- The body control module (BCM)
- The instrument panel cluster (IPC)
- The driver information center (DIC)
- The door ajar switch

Door Ajar Operation

The body control module (BCM) receives a discrete input from the door ajar switch to indicate the status of the door. The BCM then communicates this status to the instrument panel cluster (IPC) via GMLAN serial data. The IPC, upon receipt of this message, will illuminate the door ajar message in the driver information center (DIC) and also send a GMLAN serial data message to the radio to activate the door ajar audible warning when the following conditions are met:

- The transmission is shifted out of PARK.
- The vehicle speed is greater than 8 km/h (5 mph).

Hood Ajar Indicator Description and Operation

Hood Ajar Switch

The hood ajar switch provides closure status of the hood to the body control module (BCM) and on vehicles equipped with any hybrid drivetrain or start stop technology a power train module. The switch is integrated into the hood latch assembly. The BCM, and other module if equipped, monitor the voltage on their circuit as it passes through the different positions of the hood switch.

The BCM uses the hood ajar switch as a content theft deterrent alarm trigger.

Hood Ajar Indicator/Message

When the hood is ajar, a message is displayed on the driver information center (DIC) or the hood ajar indicator will be illuminated.

Power Door Locks Description and Operation

Door Lock System Components

The power door lock system consists of the following components:

- Driver door lock switch
- Front passenger door lock switch
- Rear cargo door lock switch
- Door lock relay
- Passenger door unlock relay
- Driver door unlock relay
- Cargo door unlock relay
- Body Control Module (BCM)
- Reversible door lock actuators in each of the doors
- DRV LKS 10A fuse, driver door unlock relay supply voltage
- CARGO UNLK 10A fuse, cargo door unlock relay supply voltage
- DOOR LKS 20A fuse, door lock relay and passenger door unlock relay supply voltage

Door Lock System Controls

The power door lock system can be controlled by any of the following:

- A power door lock or unlock switch activation
- A keyless entry transmission
- A lock out prevention function
- A last door locking function

Driver, Passenger and Cargo Door Lock Operation

When any of the door lock switches are placed in the lock position, a ground signal is applied to the BCM through the door lock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the door lock relay through the door lock relay control circuit. Since the other side of the door lock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DOOR LKS fuse through the battery voltage circuit. Voltage is then applied to the lock side of the door lock actuators through the door lock actuator lock circuits. Since the other side of the all the door lock actuators are connected to the normally closed contacts of their respective unlock relays to ground, the doors lock.

The lock function can also be accomplished by the BCM supplying ground to the door lock relay control circuit by either of the following:

- A keyless entry lock transmission
- A last door lock function

Driver Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the driver door unlock relay through the driver door unlock relay control circuit. Since the other side of the driver door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DRV LKS fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the driver door lock actuator through the driver door lock actuator unlock control circuit. Since the other side of the the driver door lock actuator is connected to the normally closed contacts of the door lock relay to ground, the driver door unlocks.

The driver door unlock function can also be accomplished by the BCM supplying ground to the driver door unlock relay control circuit by either of the following:

- A keyless entry unlock transmission
- A lock out prevention function

Passenger Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the passenger door unlock relay through the door unlock relay control circuit. Since the other side of the door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DOOR LKS fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the passenger door lock actuators through the door lock actuator unlock control circuits. Since the other side of the the door lock actuators are connected to the normally closed contacts of the door lock relay to ground, the passenger doors unlock.

The door unlock function can also be accomplished by the BCM supplying ground to the passenger door unlock relay control circuit during a keyless entry unlock transmission.

Cargo Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the cargo door unlock relay through the cargo door unlock relay control circuit. Since the other side of the cargo door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the CARGO UNLK fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the cargo door lock actuator through the door lock actuator unlock control circuit. Since the other side of the the cargo door lock actuator is connected to the normally closed contacts of the door lock relay to ground, the cargo door unlocks.

The cargo door unlock function can also be accomplished by the BCM supplying ground to the cargo door unlock relay control circuit during a keyless entry unlock transmission.

Delay Locking Operation

This feature allows the operator to lock all the doors from a door lock switch with the side doors(s) open. The side cargo doors have contact plates that complete the power door lock and unlock control circuits, among others, when the side cargo doors are closed, and interrupt these circuits when the doors are open. When a lock function occurs and the BCM senses an active state on any door ajar switch signal circuit the driver, front passenger and cargo doors will lock as described. The BCM continues to monitor door ajar switch signal circuits. When the BCM senses an inactive state, door closed, the BCM will cycle the door lock relay again after approximately 5 seconds to perform another lock function, thus locking the side cargo door(s).

Lockout Prevention

This feature prevents the locking of the driver door if the ignition key is left in the ignition lock cylinder. If a lock function occurs from any door lock switch and the BCM senses a door ajar and the key in ignition switch signal circuit is in the yes state, the BCM will cycle the door lock relay to lock the doors and then cycle the driver door unlock relay to unlock the driver door.

Section 3

Driver Information and Entertainment

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Rear Vision Camera Description and Operation 3-5

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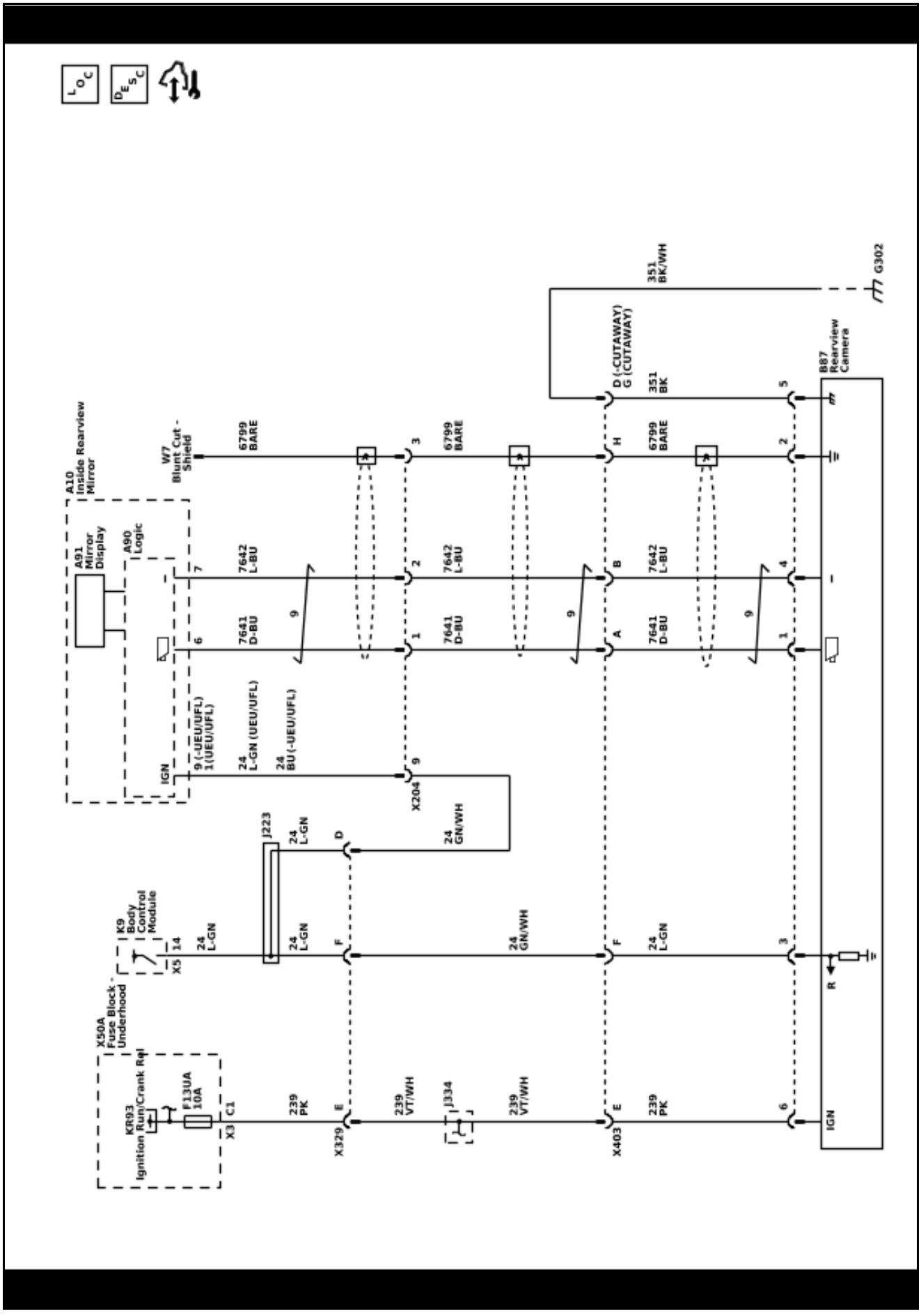
Image Display Cameras

Schematic and Routing Diagrams

Image Display Camera Schematics (Rear Vision Camera (UVC))



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Description and Operation

Rear Vision Camera Description and Operation

The rear vision camera system consists of the rearview camera and the infotainment system.

When the transmission is placed into R, 12 V is applied to the reverse lamp control circuit by the body control module (BCM). The rearview camera monitors this circuit and when 12 V is seen, indicating that the transmission is in R, the rearview camera will activate. The rearview camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rearview camera to the infotainment system. Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and cause a degraded video image. The shield is grounded by the rearview camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

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Section 4

Engine/Propulsion

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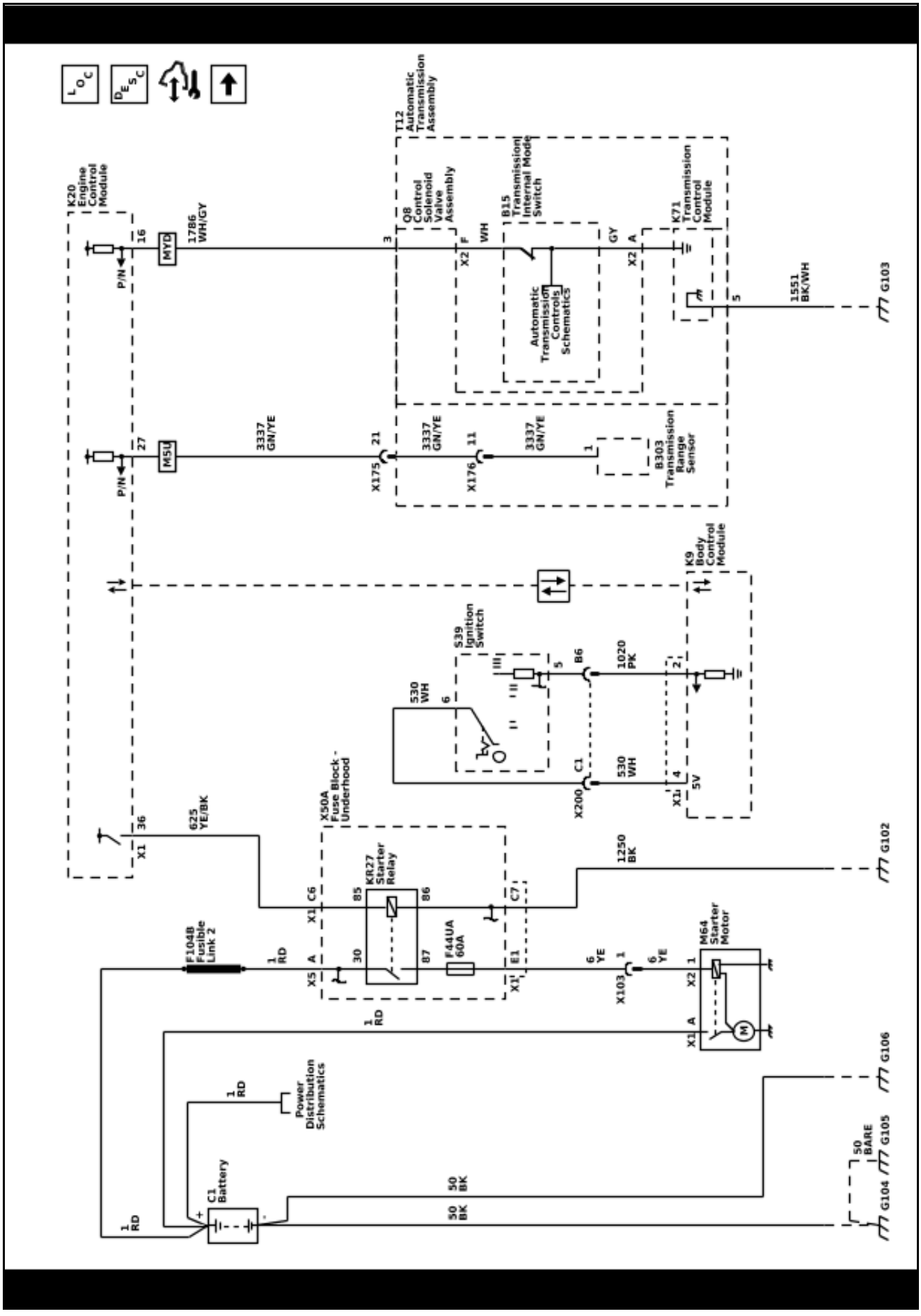
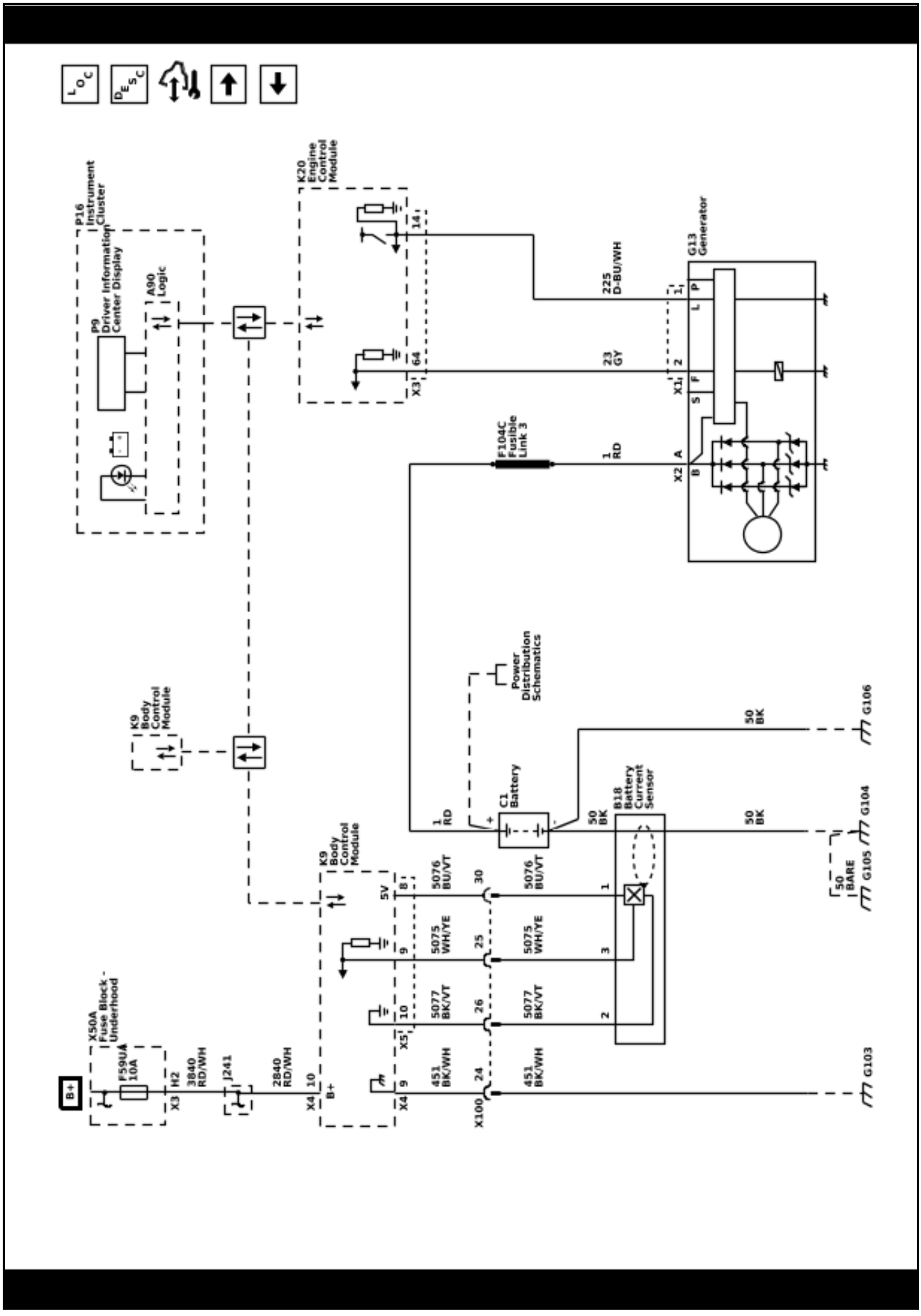
12 V Starting and Charging

Schematic and Routing Diagrams

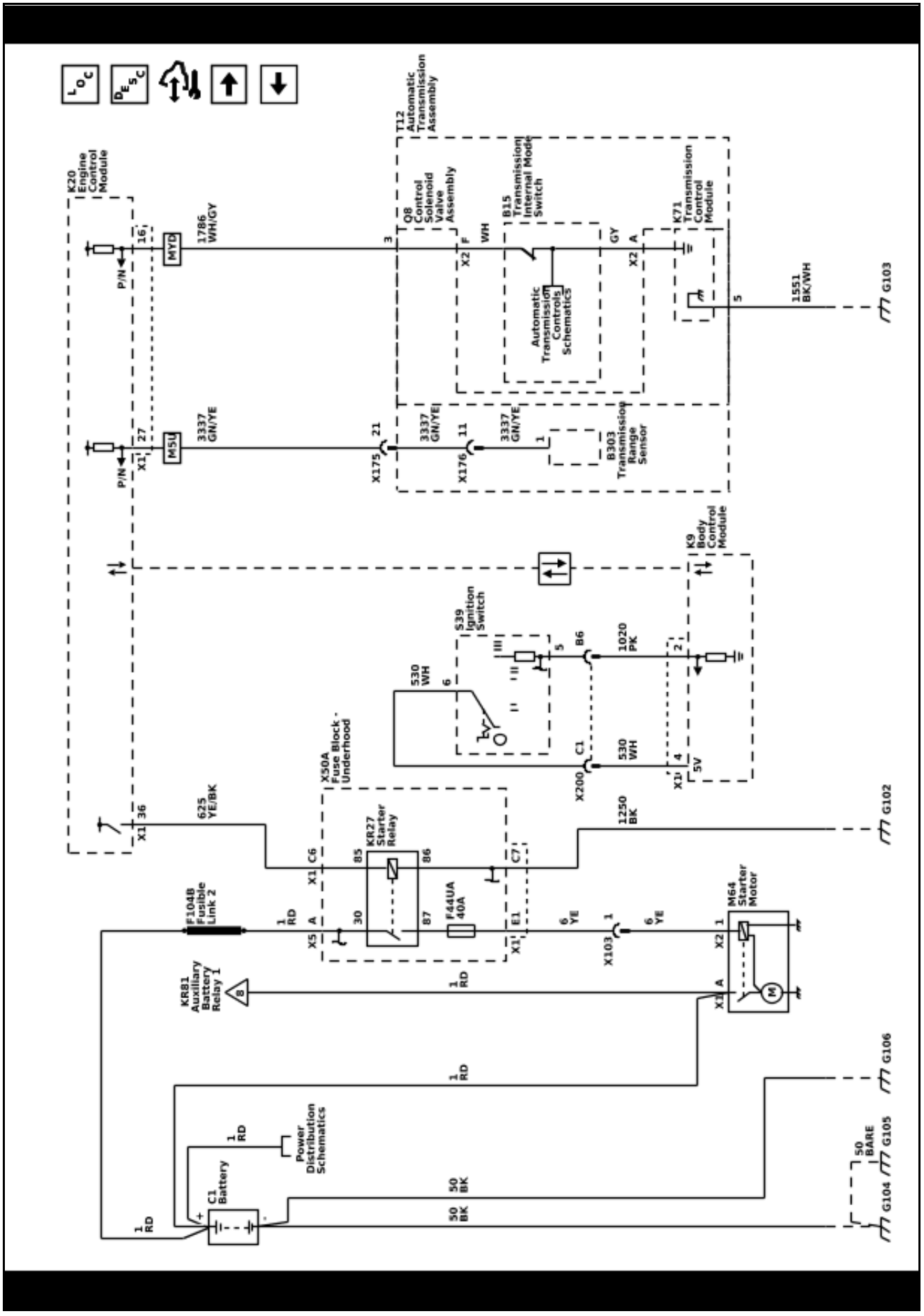
Starting and Charging Schematics (Starting System (Gas with One Battery))



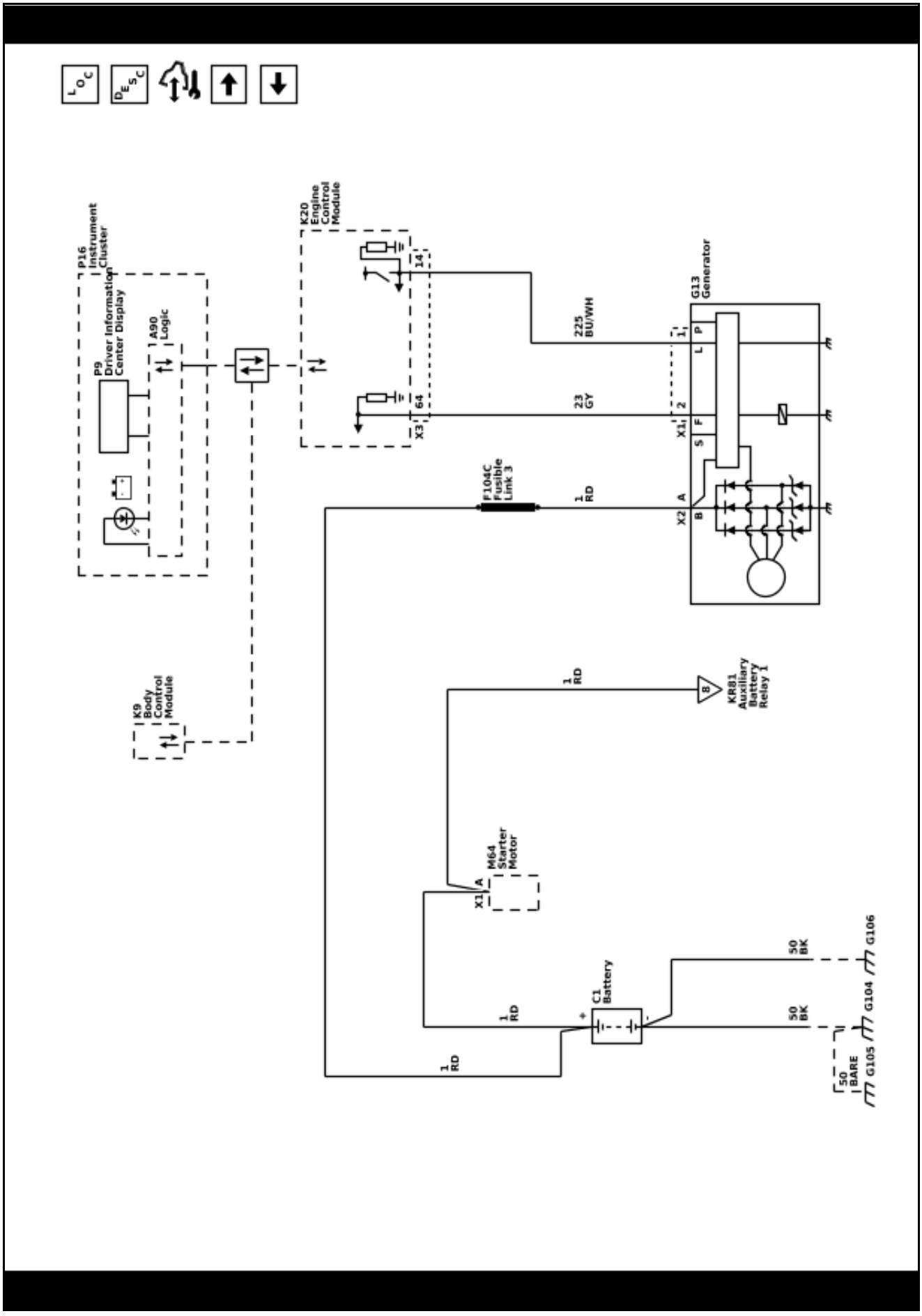
Starting and Charging Schematics (Charging System (Gas with One Battery))



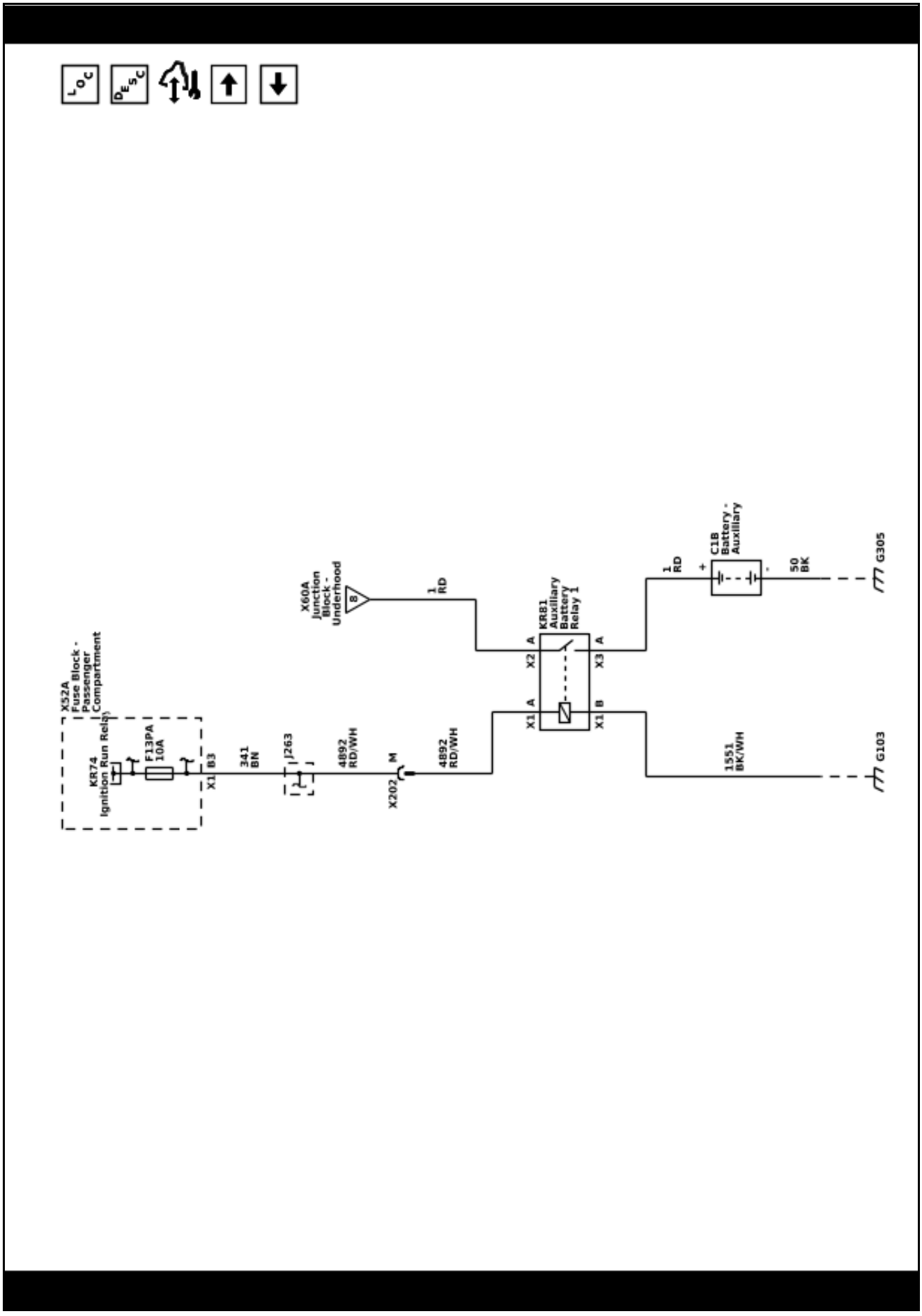
Starting and Charging Schematics (Starting System (Gas with Two Batteries))



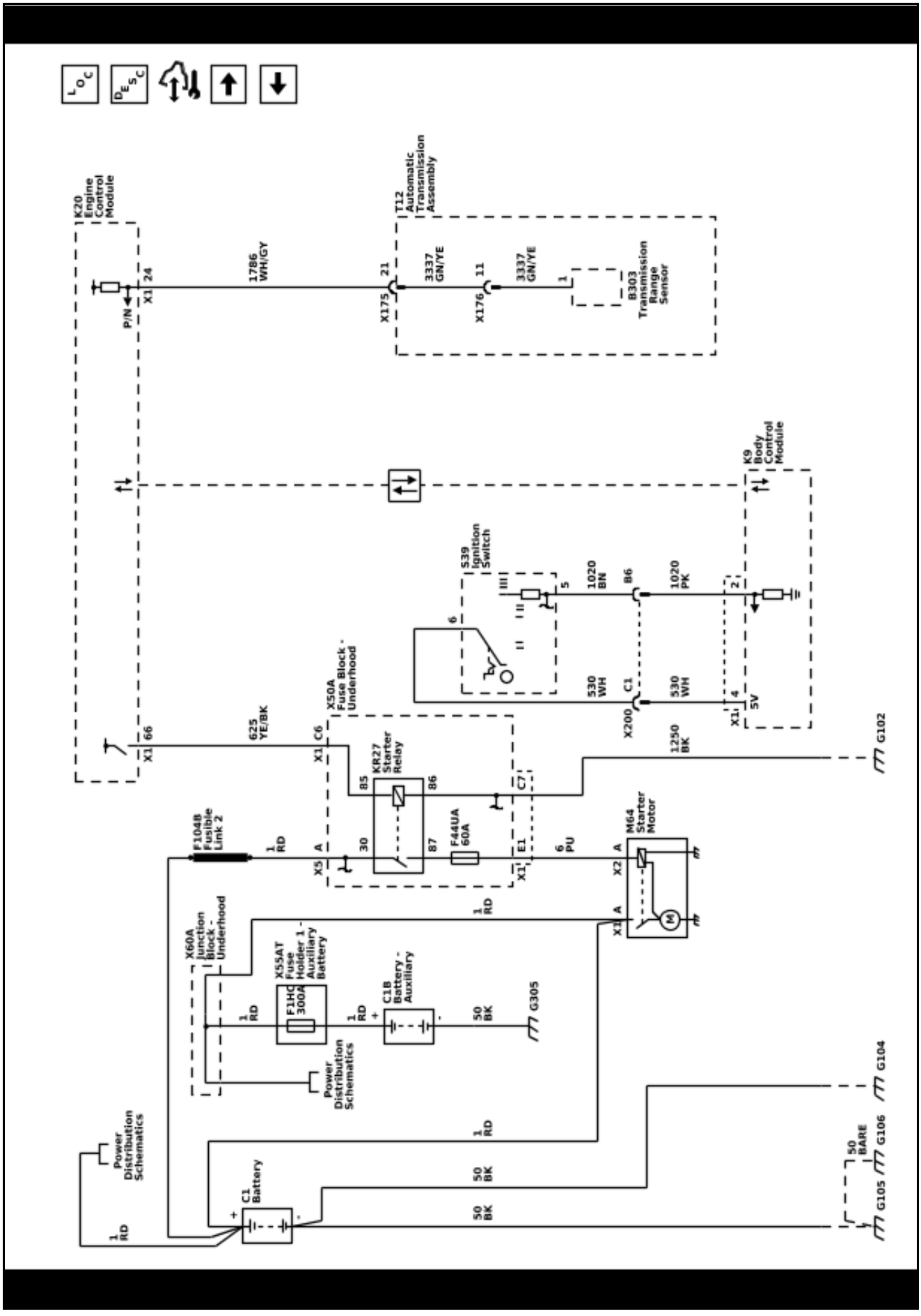
Starting and Charging Schematics (Charging System (Gas with Two Batteries))



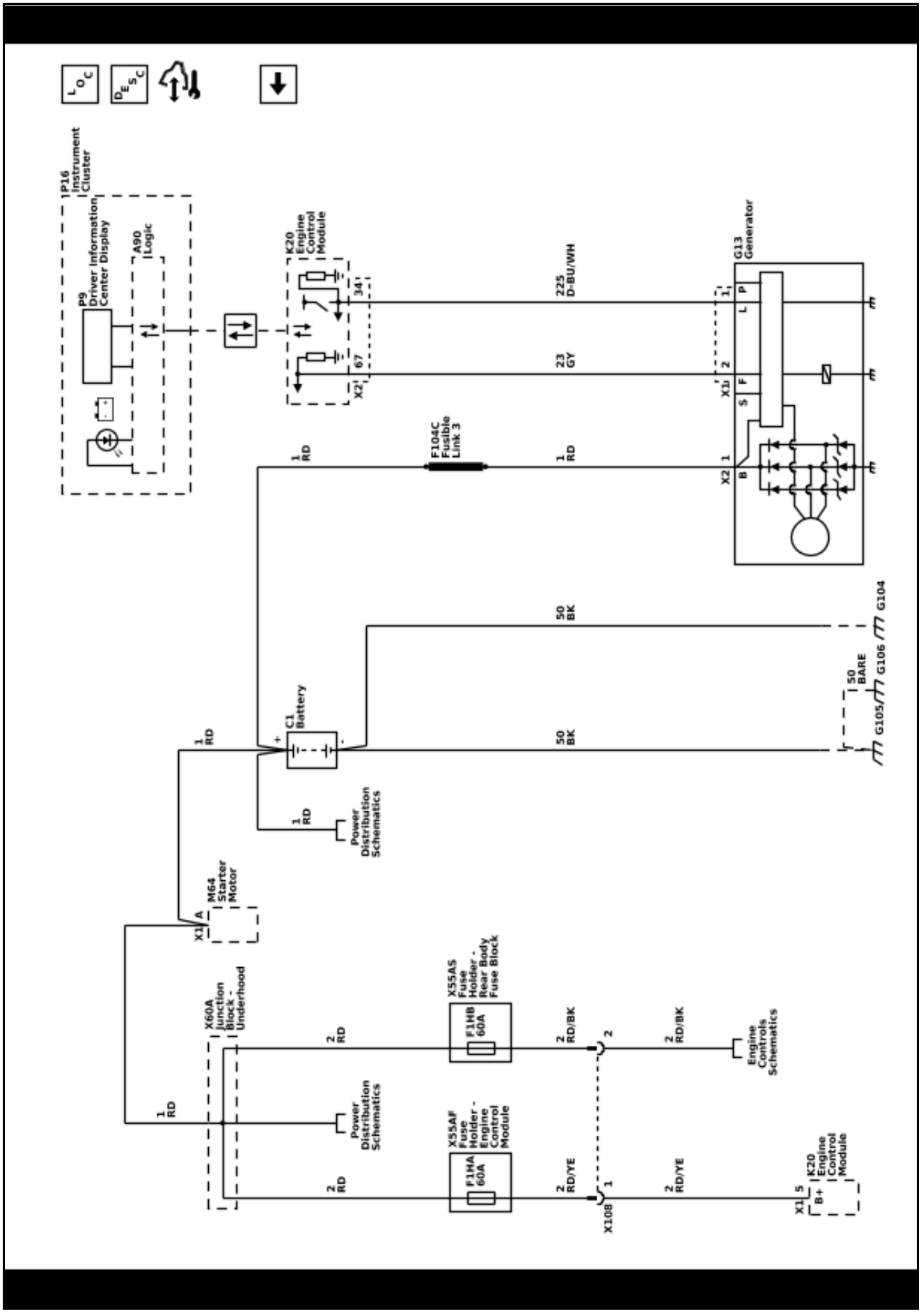
Starting and Charging Schematics (Auxiliary Battery Relay and Auxiliary Battery (Gas with Two Batteries))



Starting and Charging Schematics (Starting System (Diesel))



Starting and Charging Schematics (Charging System (Diesel))



Description and Operation

Battery Description and Operation

Warning: Batteries produce explosive gases, contain corrosive acid, and supply levels of electrical current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- ***Always shield your eyes and avoid leaning over the battery whenever possible.***
- ***Do not expose the battery to open flames or sparks.***
- ***Do not allow the battery electrolyte to contact the eyes or the skin. Flush immediately and thoroughly any contacted areas with water and get medical help.***
- ***Follow each step of the jump starting procedure in order.***
- ***Treat both the booster and the discharged batteries carefully when using the jumper cables.***

Batteries that are no longer wanted must be disposed of by an approved battery recycler and must never be thrown in the trash or sent to a landfill.

Batteries that are not part of the vehicle itself, not the battery under the hood, must only be transported on public streets for business purposes via approved hazardous material transportation procedures.

Battery storage, charging and testing facilities in repair shops must meet various requirements for ventilation, safety equipment, material segregation, etc.

The maintenance free battery is standard. There are no vent plugs in the cover. The battery is completely sealed except for 2 small vent holes in the side. These vent holes allow the small amount of gas that is produced in the battery to escape.

The battery has 3 functions as a major source of energy:

- Engine cranking
- Voltage stabilizer
- Alternate source of energy with generator overload

Battery Low Start Vehicle Message

The body control module (BCM) monitors battery positive voltage to determine battery state of charge. If one or more of the BCM battery positive voltage terminals measure less than approximately 11.6V compared to the BCM ground circuits, this message will display and four chimes may sound. Start the vehicle immediately. If the vehicle is not started and the battery continues to discharge, the climate controls, heated seats, and audio systems will shut off and the vehicle may require a jump start. These systems will function again after the vehicle is started.

Battery Ratings

A battery has 2 ratings:

- Cold cranking amperage
- Amperage hours

When a battery is replaced use a battery with similar ratings. See battery specification label on the original battery.

Amperage Hours

The amperage hour rating tells you how much amperage is available when discharged evenly over a 20 hour period. The amperage hour rating is cumulative, so in order to know how many constant amperage the battery will output for 20 h, you have to divide the amperage hour rating by 20. Example: If a battery has an amperage hour rating of 74, dividing by 20 = 3.75. Such a battery can carry a 3.75 A load for 20 hours before dropping to 10.5 V. (10.5 V is the fully discharged level, at which point the battery needs to be recharged.) A battery with an amperage hour rating of 55 will carry a 2.75 A load for 20 hours before dropping to 10.5 V.

Cold Cranking Amperage

The cold cranking amperage is an indication of the ability of the battery to crank the engine at cold temperatures. The cold cranking amperage rating is the minimum amperage the battery must maintain for 30 seconds at −18°C (0°F) while maintaining at least 7.2 V. See battery label for the cold cranking amperage rating of this battery.

Charging System Description and Operation

Electrical Power Management Overview

The electrical power management system is designed to monitor and control the charging system and send diagnostic messages to alert the driver of possible problems with the battery and generator. This electrical power management system primarily utilizes existing on-board computer capability to maximize the effectiveness of the generator, to manage the load, improve battery state-of-charge and life, and minimize the system's impact on fuel economy. The electrical power management system performs 3 functions:

- Monitor the battery voltage and estimate the battery condition
- Take corrective actions by boosting idle speeds, and adjusting the regulated voltage
- Perform diagnostics and driver notification

The battery condition is estimated during ignition/vehicle off and during ignition/vehicle on. During ignition/vehicle off the state-of-charge of the battery is determined by measuring the open-circuit voltage. The state-of-charge is a function of the acid concentration and the internal resistance of the battery, and is estimated by reading the battery open circuit voltage when the battery has been at rest for several hours.

Any time the ignition/vehicle is on, the vehicle algorithm continuously estimates battery state-of-charge based on adjusted net amp hours, battery capacity, initial state-of-charge, and calculated temperature.

While the engine is running, the battery degree of discharge is primarily determined by the integrated battery current sensor, to obtain net amp hours.

In addition, the electrical power management function is designed to perform regulated voltage control to improve battery state-of-charge, battery life, and fuel economy. This is accomplished by using knowledge of the battery state-of-charge and temperature to set the charging voltage to an optimum battery voltage level for recharging without detriment to battery life.

Charging System Components

Generator

The engine drive belt drives the generator. When the rotor is spun, it induces an alternating current (AC) into the stator windings. The AC voltage is then sent through a series of diodes for rectification. The rectified voltage has been converted into a direct current (DC) for use by the vehicles electrical system to maintain electrical loads and the battery charge. The voltage regulator integral to the generator controls the output of the generator; It is not serviceable. The voltage regulator controls the amount of current provided to the rotor. If the generator has field control circuit fault, the generator defaults to an output voltage of 13.8 V.

The generator is serviced as a complete assembly. If there is a diagnosed fault in the generator, it must be replaced as an assembly.

Generator Pulley

The pulley drives the Generator via the engine drive belt. There are 2 types of pulleys:

1. Conventional solid Pulley which is bolted to the Generator stator shaft. This Pulley can be serviced separately.

2. One Way Clutch Pulley or Overrunning Alternator Decoupler Pulley allows the Generator to spin freely when the engine rapidly slows down on sudden deceleration. This part is not serviceable and the Generator needs to be replaced as an assembly.

Body Control Module (BCM)

The BCM communicates with the Engine Control Module (ECM) and the instrument cluster for electrical power management operation. The BCM determines the output of the generator and sends the information to the ECM for control of the generator turn on signal circuit. It monitors the generator field duty cycle signal circuit information sent from the ECM for control of the generator. It monitors the battery current sensor, the battery positive voltage circuit, and estimates battery temperature to determine battery state of charge. The BCM also performs idle boost.

Battery Current Sensor (if applicable)

The Battery Current Sensor is a serviceable component that is connected to the negative battery cable at the battery. The battery current sensor is a 3-wire hall effect current sensor. The battery current sensor monitors the battery current. It directly inputs to the BCM. It creates a 5 volt Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. Between 0–5% and 95–100% are for diagnostic purposes.

Battery Sensor Module (if applicable)

The BCM monitors the Battery Sensor Module for battery state of current, state of health, and battery charge via serial data. If the battery is determined to be in poor state of health or having a low state of charge, the BCM will not allow the ECM to perform an auto-stop.

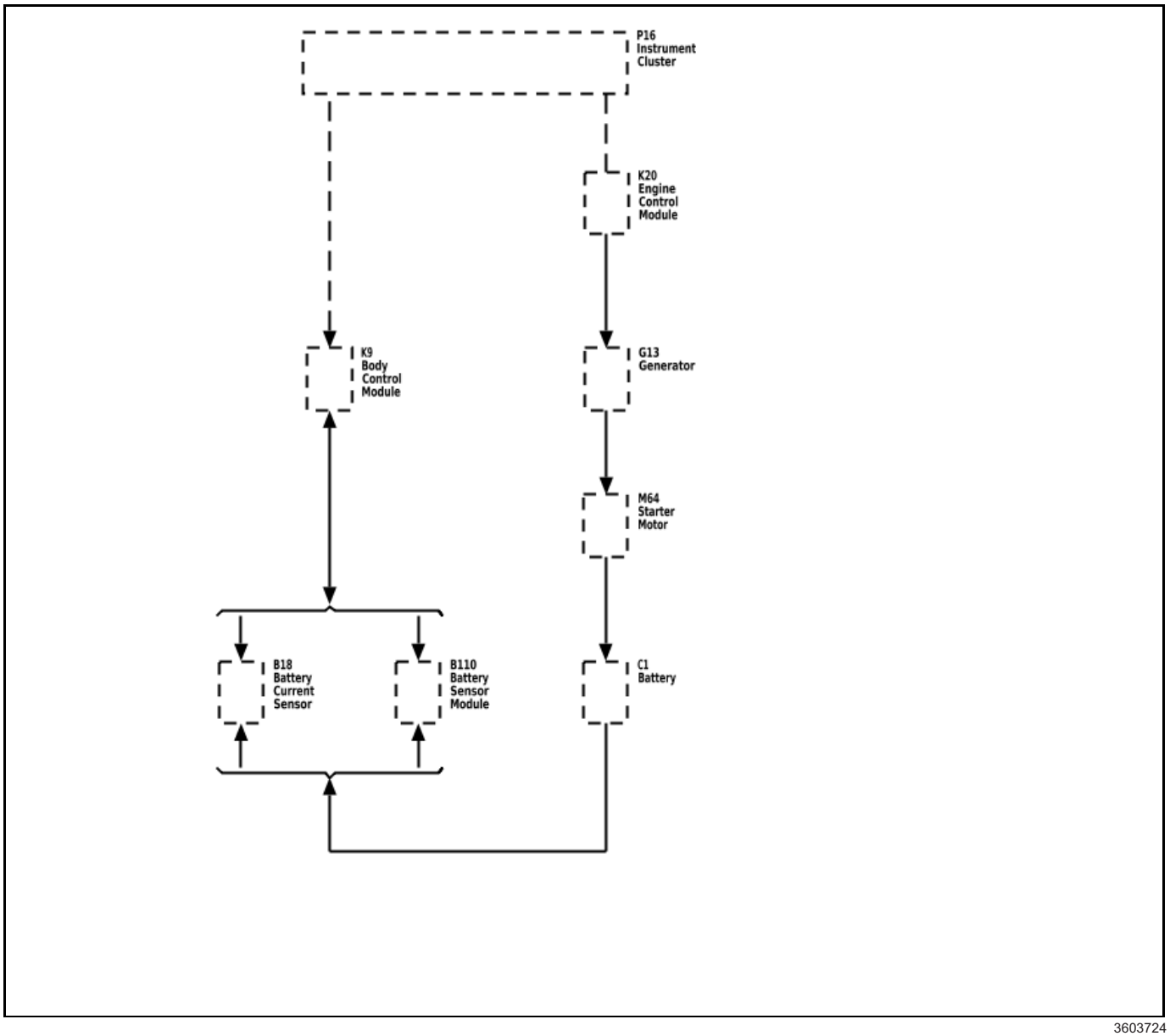
Engine Control Module (ECM)

When the engine is running, the generator turn-on signal is sent to the generator from the ECM, turning on the regulator. The generator's voltage regulator controls current to the rotor, thereby controlling the output voltage. The rotor current is proportional to the electrical pulse width supplied by the regulator. When the engine is started, the regulator senses generator rotation by detecting AC voltage at the stator through an internal wire. Once the engine is running, the regulator varies the field current by controlling the pulse width. This regulates the generator output voltage for proper battery charging and electrical system operation. The generator field duty terminal is connected internally to the voltage regulator and externally to the ECM. When the voltage regulator detects a charging system problem, it grounds this circuit to signal the ECM that a problem exists. The ECM monitors the generator field duty cycle signal circuit, and receives control decisions based on information from the BCM.

Instrument Cluster

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

The instrument cluster also provides customer notification if there is a concern with the charging system. There are two means of notification: a charge indicator on the instrument cluster and/or a service system message displayed on the Driver Information Center (DIC) if equipped.



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Charging System Operation

The purpose of the charging system is to maintain the battery charge and vehicle loads. There are 6 modes of operation and they include:

- Battery Sulfation Mode
- Charge Mode
- Fuel Economy Mode
- Head lamp Mode
- Start Up Mode
- Voltage Reduction Mode

The ECM Controls the Generator through the generator turn–on signal circuit, also known as the Generator L-terminal. The ECM monitors the generator performance though the Generator field duty cycle signal circuit, also known as the generator F-terminal.

The Generator turn–on signal (Generator L-terminal) is a Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. 0–5% and 95–100% are for diagnostic purposes, with 0–5% monitoring for an open circuit and 95–100% monitoring for a short to ground at a fixed 13.8 V. The following table shows the commanded duty cycle and output voltage of the Generator:

Commanded Duty Cycle	Generator Output Voltage (+/- .25 V)
0–5%	13.8 V
10%	11 V
20%	11.56 V
30%	12.13 V
40%	12.69 V
50%	13.25 V
60%	13.81 V
70%	14.38 V
80%	14.94 V
90%	15.5 V
95–100%	13.8 V

The Generator provides a PWM feedback signal of the Generator voltage output through the Generator field duty cycle signal circuit to the ECM. This information is sent to the Body Control Module (BCM). The Generator field duty cycle signal (Generator F-terminal) is a PWM signal of 60–460 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–100%. 0–5% is reserved for diagnostic purposes.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage displayed in the DIC to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Charging System Modes

Battery Sulfation Mode

The BCM will enter this mode when the interpreted Generator output voltage is less than 13.2 V for 45 minutes. When this condition exists the BCM will enter Charge Mode for 2–3 minutes. The BCM will then determine which mode to enter depending on voltage requirements.

Charge Mode

The BCM will enter Charge Mode when ever one of the following conditions are met:

- Windshield wipers are ON for more than 3 s.
- Climate Control Voltage Boost Mode Request is true, as sensed by the HVAC control module via serial data. High speed cooling fan, rear defogger, and HVAC high speed blower operation can cause the BCM to enter the Charge Mode.
- The estimated battery temperature is less than 0° C (32°F).
- Battery State of Charge is less than 80%.
- Vehicle speed is greater than 145 km/h (90 mph)
- A current sensor malfunction exists.
- System voltage is determined to be below 12.56 V

When any one of these conditions is met, the system will set targeted generator output voltage to a charging voltage between 13.9–15.5 V, depending on the battery state of charge and estimated battery temperature.

Fuel Economy Mode

The BCM will enter Fuel Economy Mode when the estimated battery temperature is at least 0°C (32°F) but less than or equal to 80°C (176°F), the calculated battery current is less than 15 A and greater than −8 A, and the battery state-of-charge is greater than or equal to 80%. Its targeted generator output voltage is the open circuit voltage of the battery and can be between 12.5–13.1 V. When fuel economy mode is active, the generator is not charging, only maintaining open circuit battery voltage. The BCM will exit this mode and enter Charge Mode when any of the conditions described above are present.

Headlamp Mode

The BCM will enter Headlamp Mode when ever the head lamps are ON (high or low beams). Voltage will be regulated between 13.9–14.5 V.

Start Up Mode

When the engine is started the BCM sets a targeted generator output voltage of 14.5 V for 30 s.

Tow/Haul Mode (if applicable)

Pressing the Tow/Haul Mode button located on the center stack, the vehicle system voltage is raised and the remote (non-vehicle) battery will be charged. Having the headlamps on will raise the system voltage and if the Tow/Haul button is applied it will not serve any purpose. The voltage is regulated between 13.9-14.5 V.

Instrument Cluster Operation

Charge Indicator Operation

The instrument cluster illuminates the charge indicator and displays a warning message in the driver information center if equipped, when the one or more of the following occurs:

- The ECM detects that the generator output is less than 11 V or greater than 16 V. The instrument cluster receives a serial data message from the ECM requesting illumination.
- The instrument cluster determines that the system voltage is less than 11 V or greater than 16 V for more than 30 s. The instrument cluster receives a serial data message from the BCM indicating there is a system voltage range concern.
- The instrument cluster performs the displays test at the start of each ignition cycle. The indicator illuminates for approximately 3 s.

Driver Information Center Message: BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM

The BCM and the ECM will send a serial data message to the driver information center for the BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM message to be displayed. It is displayed when a charging system DTC is a current DTC. The message is turned off when the conditions for clearing the DTC have been met.

Voltmeter Gauge and/or System Voltage Display (if equipped)

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage display in the driver information center to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Electrical Power Management Description and Operation (Gasoline)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Electrical Power Management Description and Operation (Diesel)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition. Idle boost consists of three steps: idle boost 1, idle boost 2, and idle boost 3 (approximately 725, 850, and 850 rpm respectively). Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Starting System Description and Operation

Starter Motor Operation (Without KL9)

The starter motors are non-repairable. They have pole pieces that are arranged around the armature. Both solenoid windings are energized. The pull-in winding circuit is completed to the ground through the starter motor. The windings work together magnetically to pull and hold in the plunger. The plunger moves the shift lever. This action causes the starter drive assembly to rotate on the armature shaft spline as it engages with the flywheel ring gear on the engine. Moving at the same time, the plunger also closes the solenoid switch contacts in the starter solenoid. Full battery voltage is applied directly to the starter motor and it cranks the engine.

As soon as the solenoid switch contacts close, current stops flowing thorough the pull-in winding because battery voltage is applied to both ends of the windings. The hold-in winding remains energized. Its magnetic field is strong enough to hold the plunger, shift lever, starter drive assembly, and solenoid switch contacts in place to continue cranking the engine. When the engine starts, pinion overrun protects the armature from excessive speed until the switch is opened.

When the crank signal is removed, the starter relay opens and battery voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to the ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now opposite the direction of the current flow when the winding was first energized.

The magnetic fields of the pull-in and hold-in windings now oppose one another. This action of the windings, along with the help of the return spring, causes the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter circuit is turned off.

Enhanced Starter Motor Operation (KL9)

The Engine Stop/Start system in GM vehicles automatically turns off the engine when the vehicle comes to a stop under certain driving conditions, and can quickly restart the engine in about 0.3 seconds when commanded to do so.

In order to smoothly restart the engine as quickly as possible while managing the greater number of engine starts, the Stop/Start system uses an enhanced starter motor that operates differently from a conventional starter motor. It has a high performance electric motor and a stronger pinion engagement mechanism than a conventional starter. It also has independent control of the pinion and motor.

The enhanced starter motor continues using the typical pinion engagement mechanism with a starter solenoid that drives the pinion gear to engage or disengage the flywheel of the engine. When engaged, the starter motor can rotate the engine flywheel and, in turn, the crankshaft.

On the enhanced starter of a Stop/Start system the operation is done in two separate functions inside the solenoid, Starter Motor and Pinion Actuator. Each function controlled individually by the ECM. There are two separate relays to control the two separate parts of the enhanced solenoid:

- KR27 Starter Motor Relay
- KR27C Starter Pinion Actuator Relay

The two individually-controlled relays allow for smooth engagement of the pinion gear into the flywheel with minimum noise and wear.

When the vehicle is coming to a stop, just before the engine stops rotating (at approximately 50 RPM) during stop/start operation, the ECM energizes the Starter Pinion Solenoid Actuator Relay to easily push the pinion gear into the flywheel gear without gear clash. (Fig. 8) When the engine stops rotating during Stop/Start operation (Auto Stop mode), the starter pinion gear is fully engaged, ready for the starter motor to become energized to quickly start the engine again.

A secondary need for the starter pinion to be driven into the flywheel gear before the engine stops rotating is to address quickly changing demands on the engine. For example, when a driver is slowing nearly to a stop — and the Stop/Start system is preparing for Auto Stop mode — but suddenly decides to release the brake and accelerate

In this situation, the engine has already stopped rotating, or nearly so. A conventional starter cannot restart the engine until the engine has completely stopped. However, with the enhanced starter, the starter pinion gear is fully engaged and ready to begin rotating the engine even before it fully stops turning. Otherwise, the engine would actually have to stop rotating before the pinion can engage smoothly to begin a restart.

To prevent a lag in engine operation, the ECM uses predictive speed matching of the flywheel gear speed and the pinion gear speed to engage the pinion gear into the flywheel gear without gear clash before the engine fully stops. By predicting how long it takes the starter motor to spin up using an algorithm, the pinion gear speed can be matched to the flywheel gear speed. The result is an almost instant restart that is possible at extremely low engine speeds.

Circuit Description

Keyless Start

When the Ignition mode switch is placed in the crank position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the crank position. The BCM then sends a serial data message to the engine control module (ECM) that crank has been requested. The ECM then verifies that the clutch is fully depressed or the automatic transmission is in Park/Neutral. If it is, the ECM then supplies 12 V to the control circuit of the starter relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Key Start

When the ignition switch is placed in the Start position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the Start position. The BCM then sends a message to the engine control module (ECM) notifying it that CRANK has been requested. The ECM verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies 12 V to the control circuit of the crank relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Section 5

HVAC

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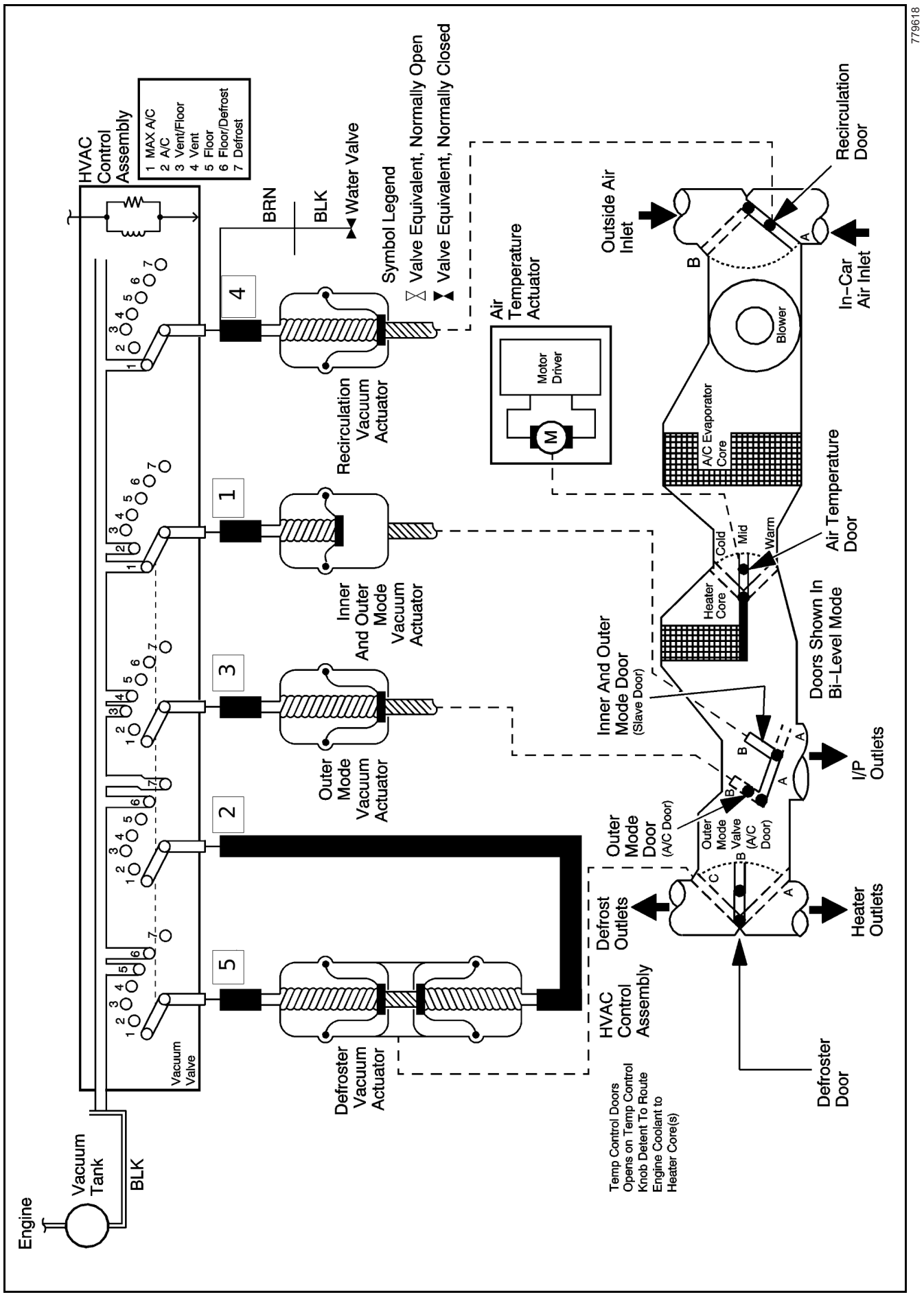
Air Delivery Description and Operation 5-16
Air Temperature Description and Operation 5-17

BLANK

HVAC - Manual

Schematic and Routing Diagrams


HVAC Vacuum Schematics (Vacuum System Control Schematic)
779618
HVAC Control Assembly
1 MAX A/C
2 A/C
3 Vent/Floor
4 Vent
5 Floor
6 Floor/Defrost
7 Defrost
BRN
BLK
Water Valve
Symbol Legend
Valve Equivalent, Normally Open
Valve Equivalent, Normally Closed
Air Temperature Actuator
Motor Driver
Recirculation Vacuum Actuator
Inner And Outer Mode Vacuum Actuator
Outer Mode Vacuum Actuator
Defroster Vacuum Actuator
Vacuum Valve
Engine
Vacuum Tank
BLK
Temp Control Doors Opens on Temp Control Knob Detent To Route Engine Coolant to Heater Core(s)
HVAC Control Assembly
Defrost Outlets
Outer Mode Door (A/C Door)
Outer Mode Valve (A/C Door)
Inner And Outer Mode Door (Slave Door)
Heater Core
A/C Evaporator Core
Blower
Outside Air Inlet
Recirculation Door
In–Car Air Inlet
Air Temperature Door
Cold
Mid
Warm
Doors Shown In Bi–Level Mode
I/P Outlets
Heater Outlets
Defroster Door

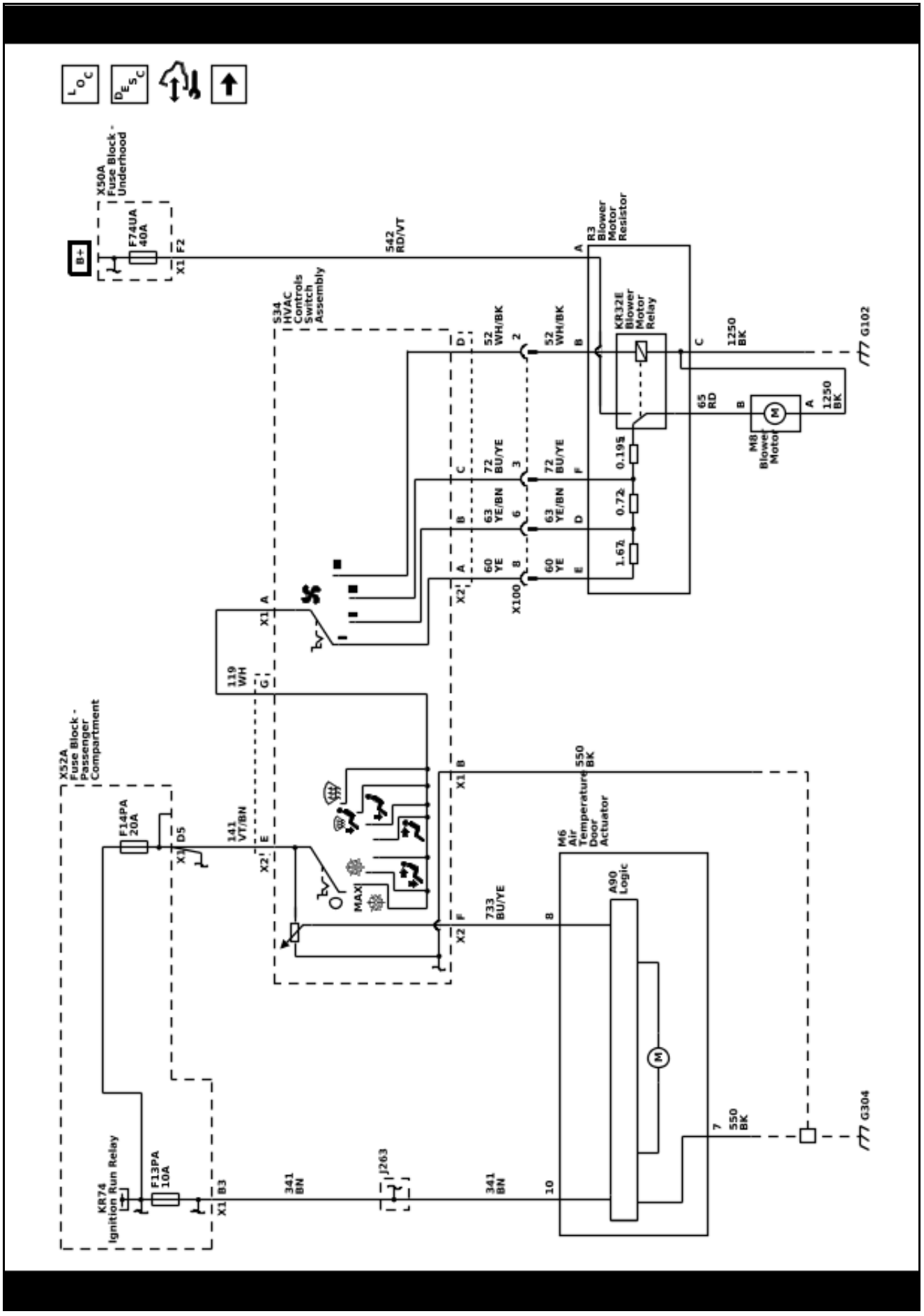
Heater Only

Vacuum Valve Switch Operating Chart							
Vacuum Hose Connector	**Port Number**	**Off**	**Vent**	**Bi- Level**	**Heat**	**Blend**	**Defrost**
A/C Open	1	Vent	Vacuum	Vent	Vent	Vent	Vent
Defrost	2	Vent	Vent	Vent	Vent	Vent	Vacuum
Bi- Level	3	Vent	Vacuum	Vacuum	Vent	Vent	Vent
Recirculation	4	Vent	Vent	Vent	Vent	Vent	Vent
Heater	5	Vacuum	Vent	Vacuum	Vacuum	Vent	Vent
Vacuum Source	6	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum

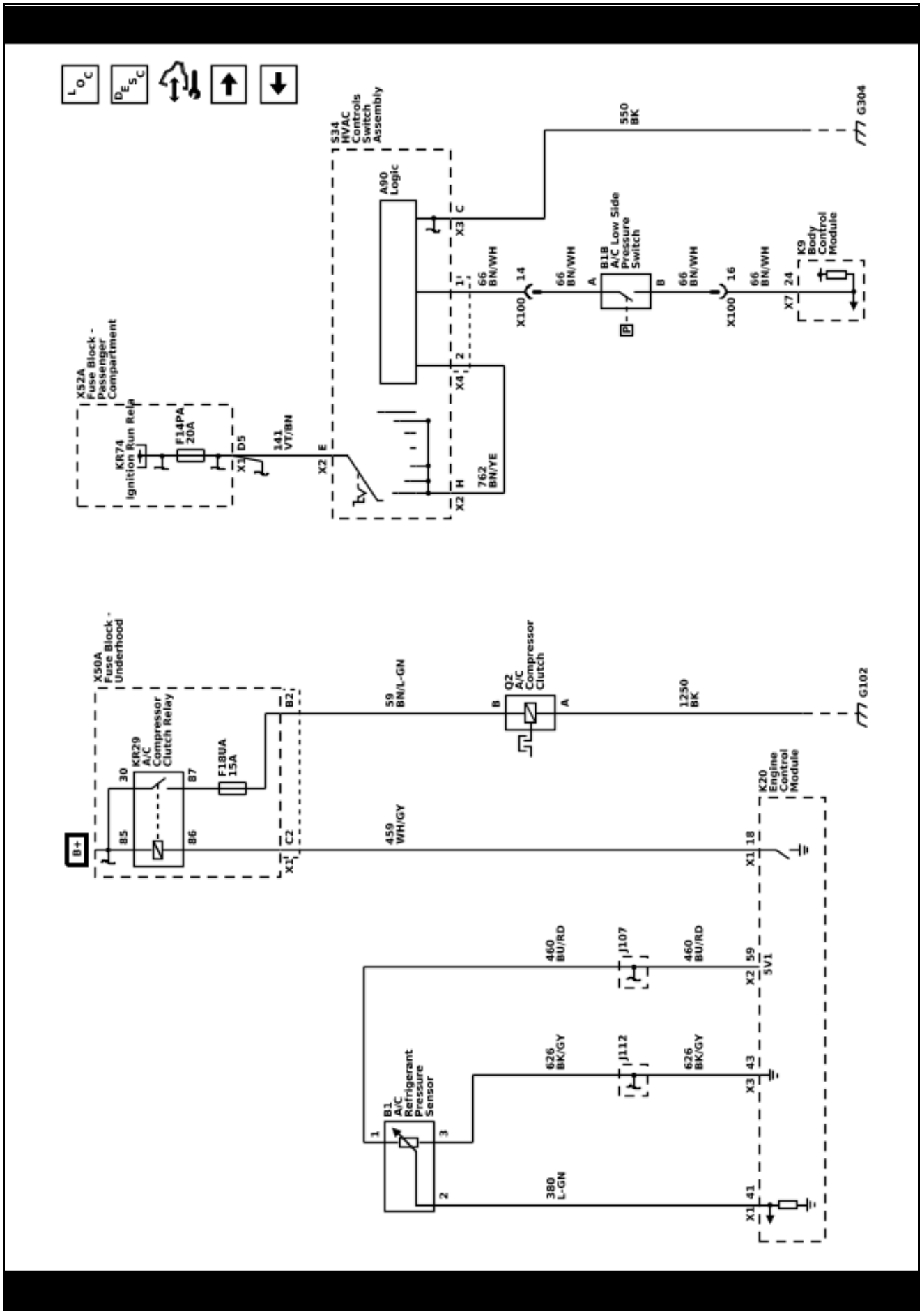
Heater and Air Conditioning

Vacuum Valve Switch Operating Chart									
Vacuum Hose Connector	**Port Number**	**Off**	**MAX**	**Normal**	**Bi- Level**	**Vent**	**Heat**	**Blend**	**Defrost**
A/C Open	1	Vent	Vacuum	Vacuum	Vent	Vacuum	Vent	Vent	Vent
Defrost	2	Vent	Vent	Vent	Vent	Vent	Vent	Vent	Vacuum
Bi- Level	3	Vent	Vacuum	Vacuum	Vacuum	Vacuum	Vent	Vent	Vent
Recirculation	4	Vent	Vacuum	Vent	Vent	Vent	Vent	Vent	Vent
Heater	5	Vacuum	Vent	Vent	Vacuum	Vent	Vacuum	Vent	Vent
Vacuum Source	6	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum

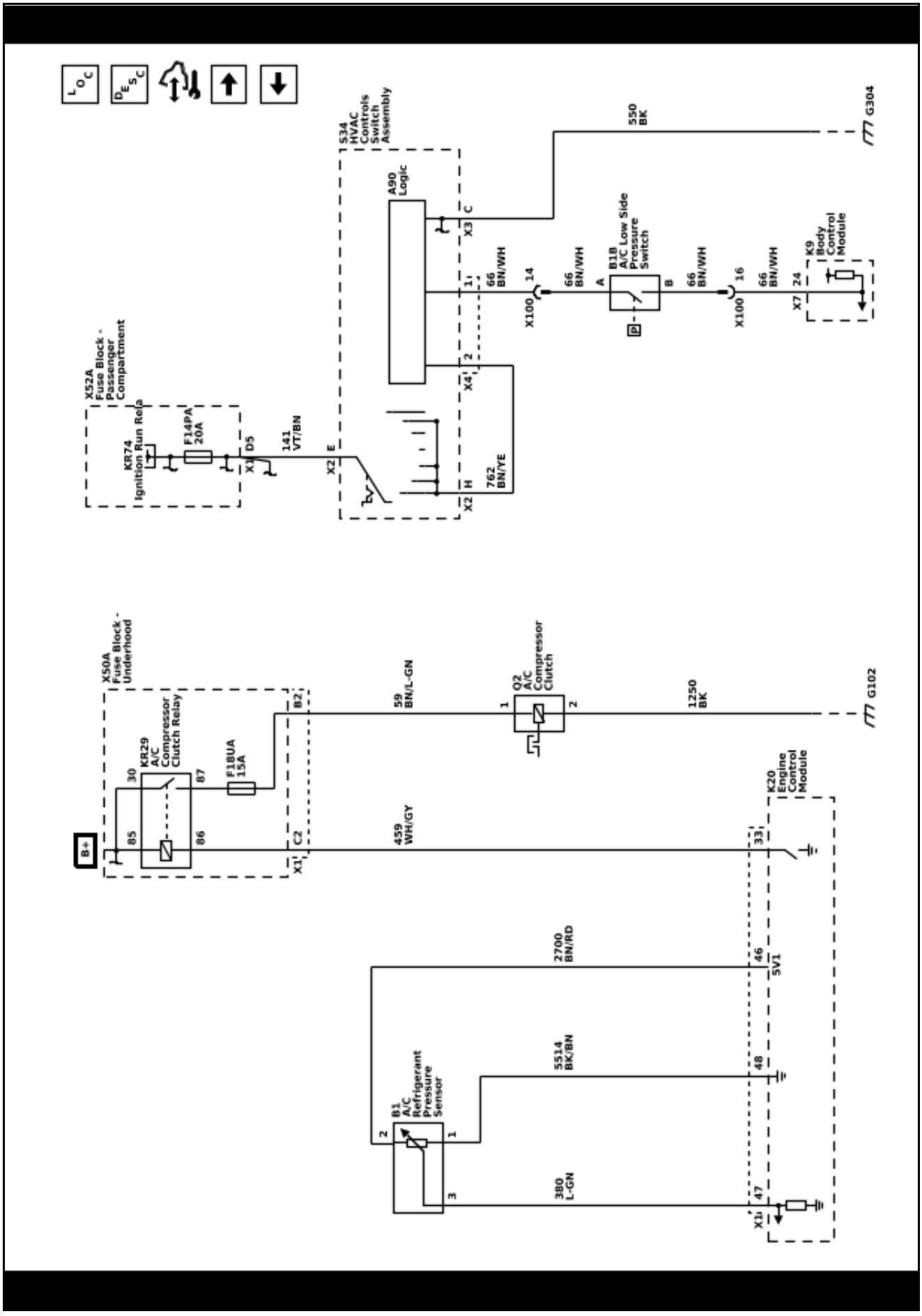
HVAC Schematics (Front Air Delivery Controls and Front Blower Motor)



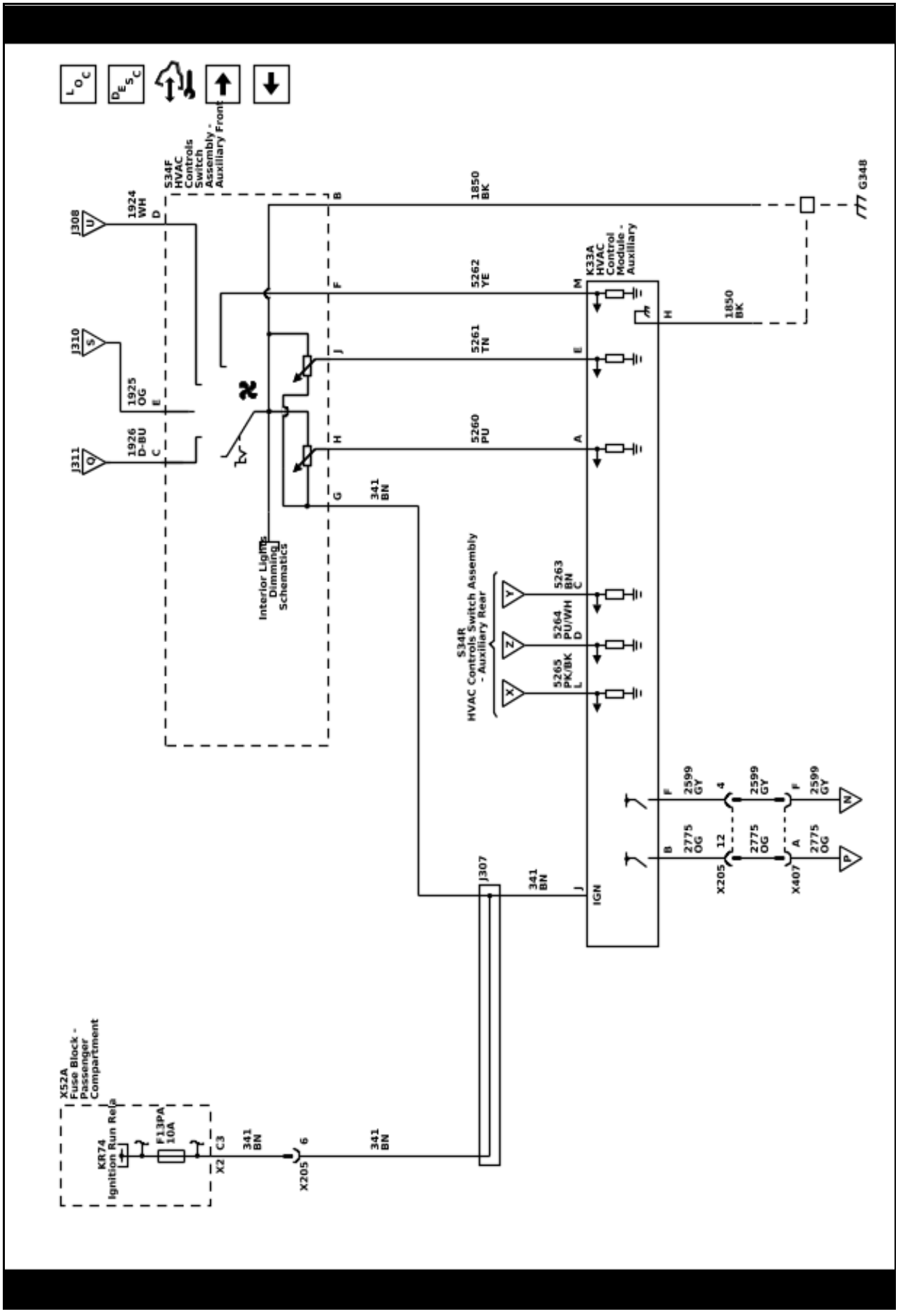
HVAC Schematics (Compressor Controls (C60-LWN))



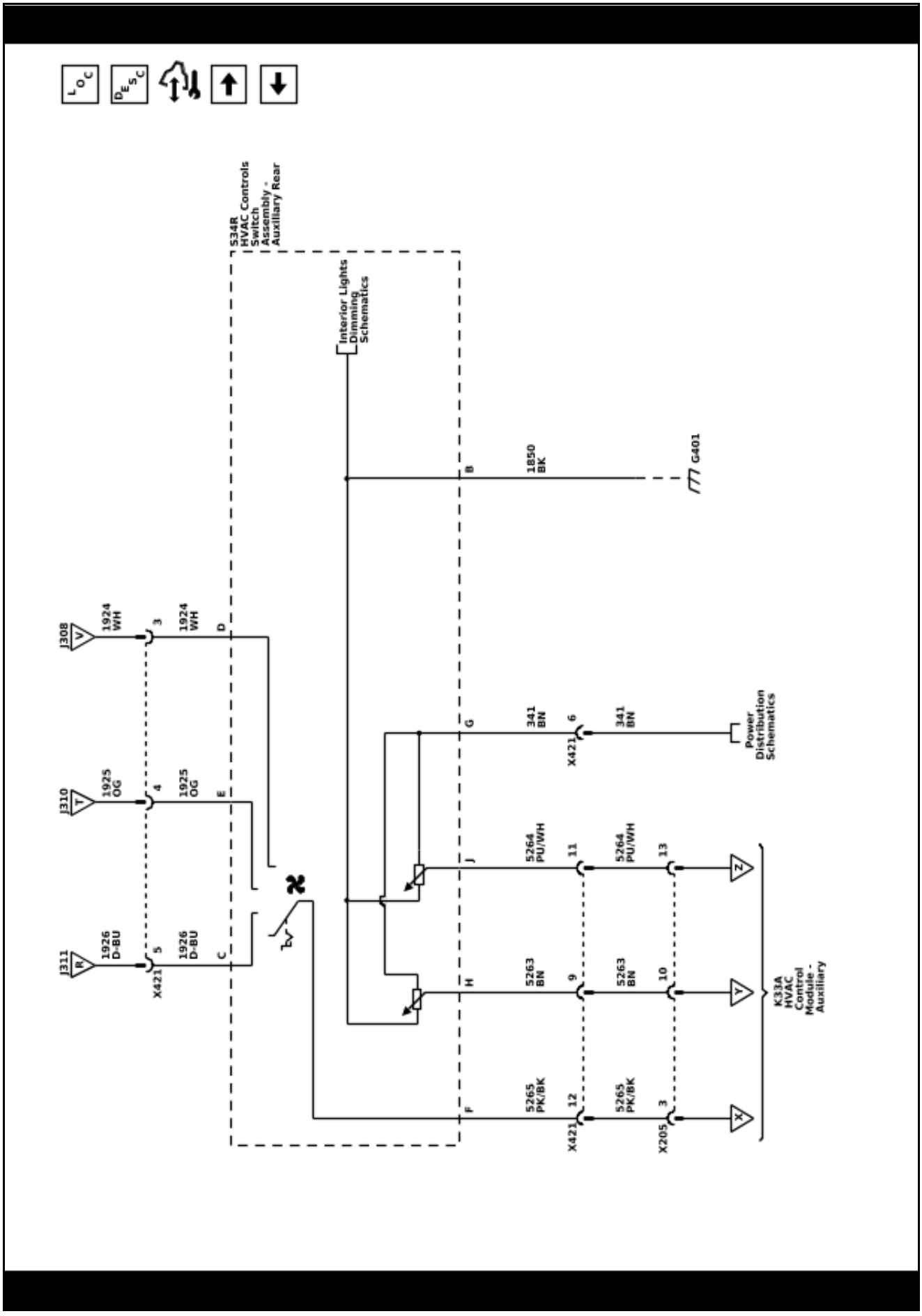
HVAC Schematics (Compressor Controls (C60+LWN))



HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), with Rear HVAC Controls - Air Delivery Controls)



HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), with Rear HVAC Controls - Rear Controls)



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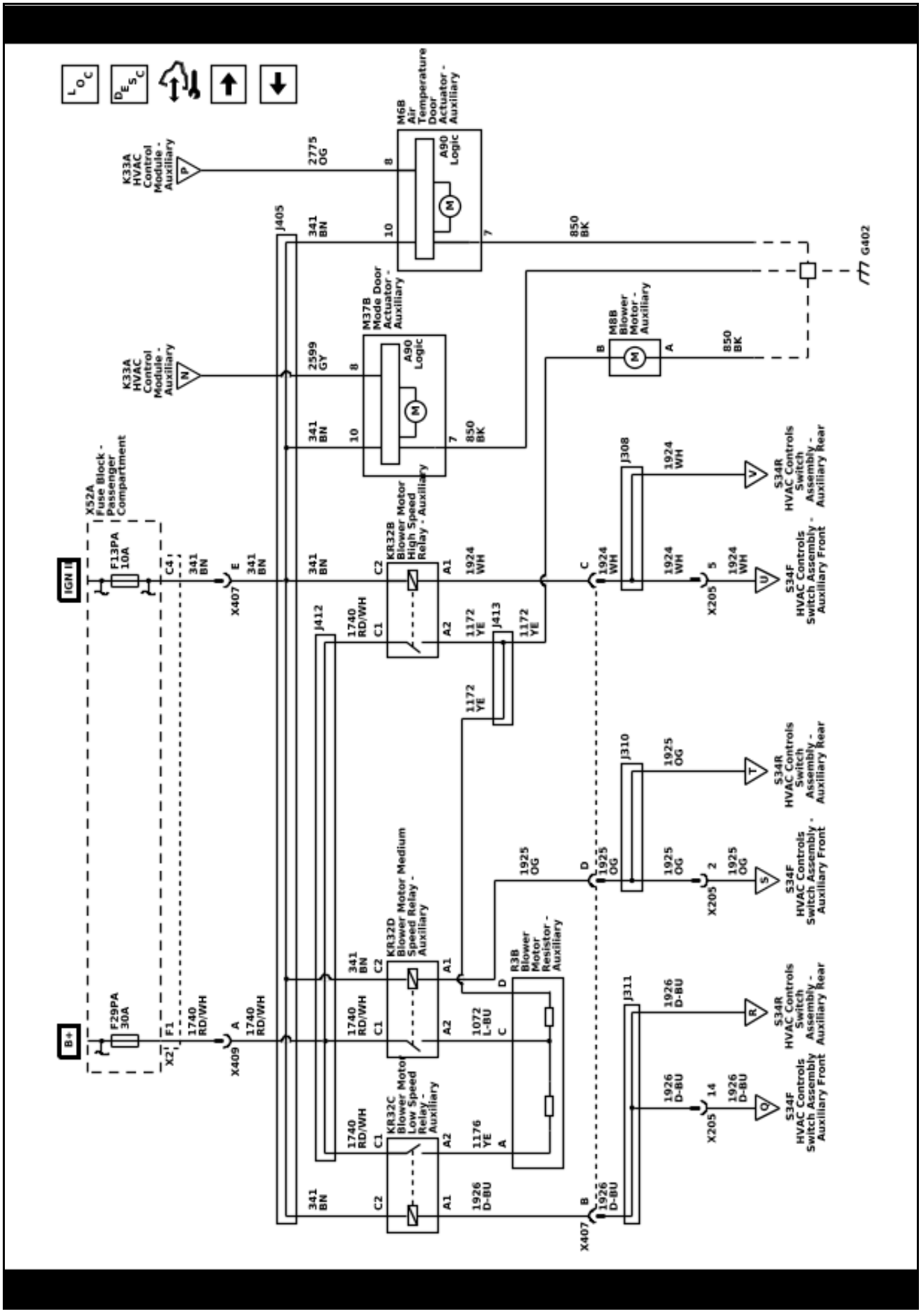
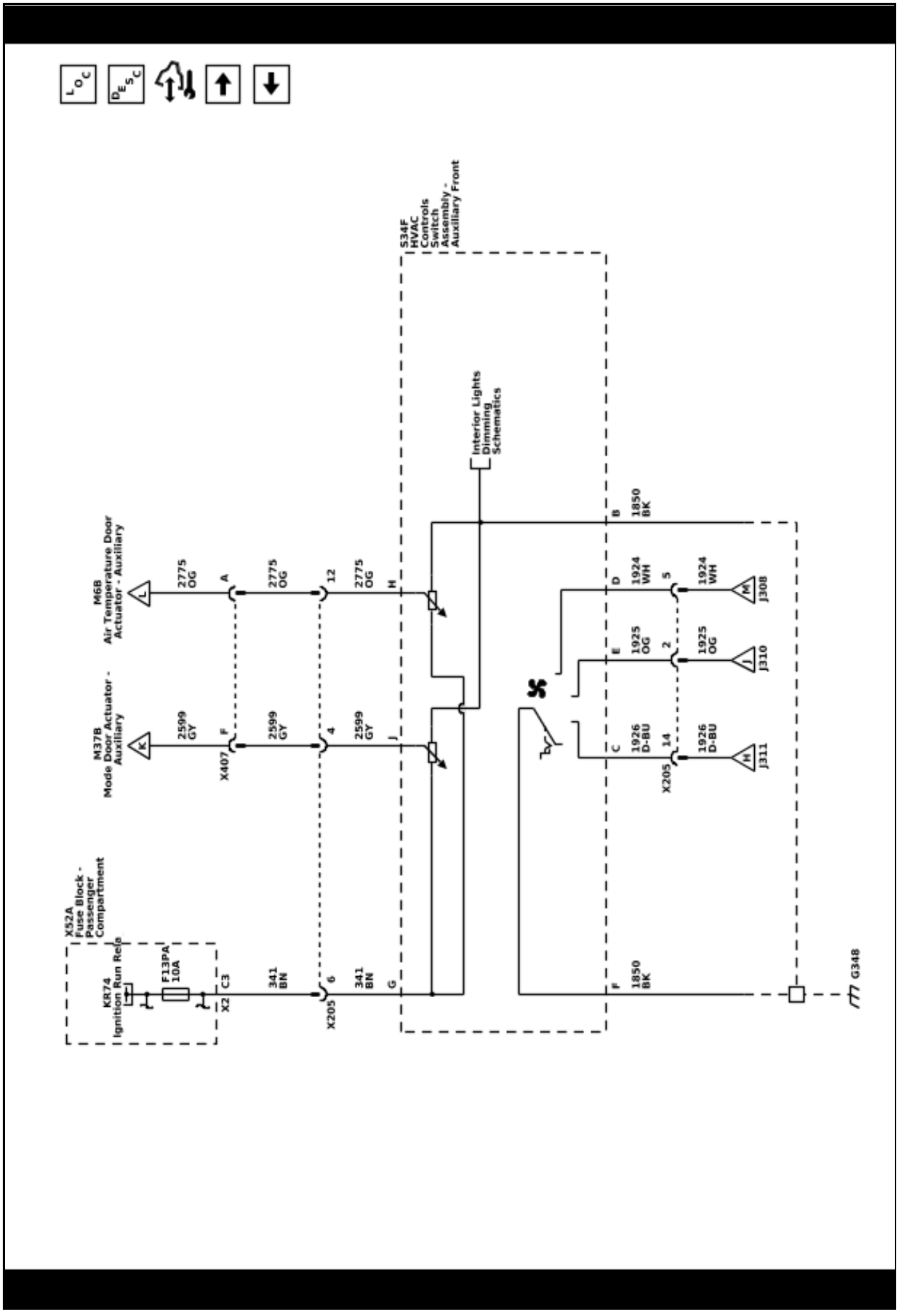
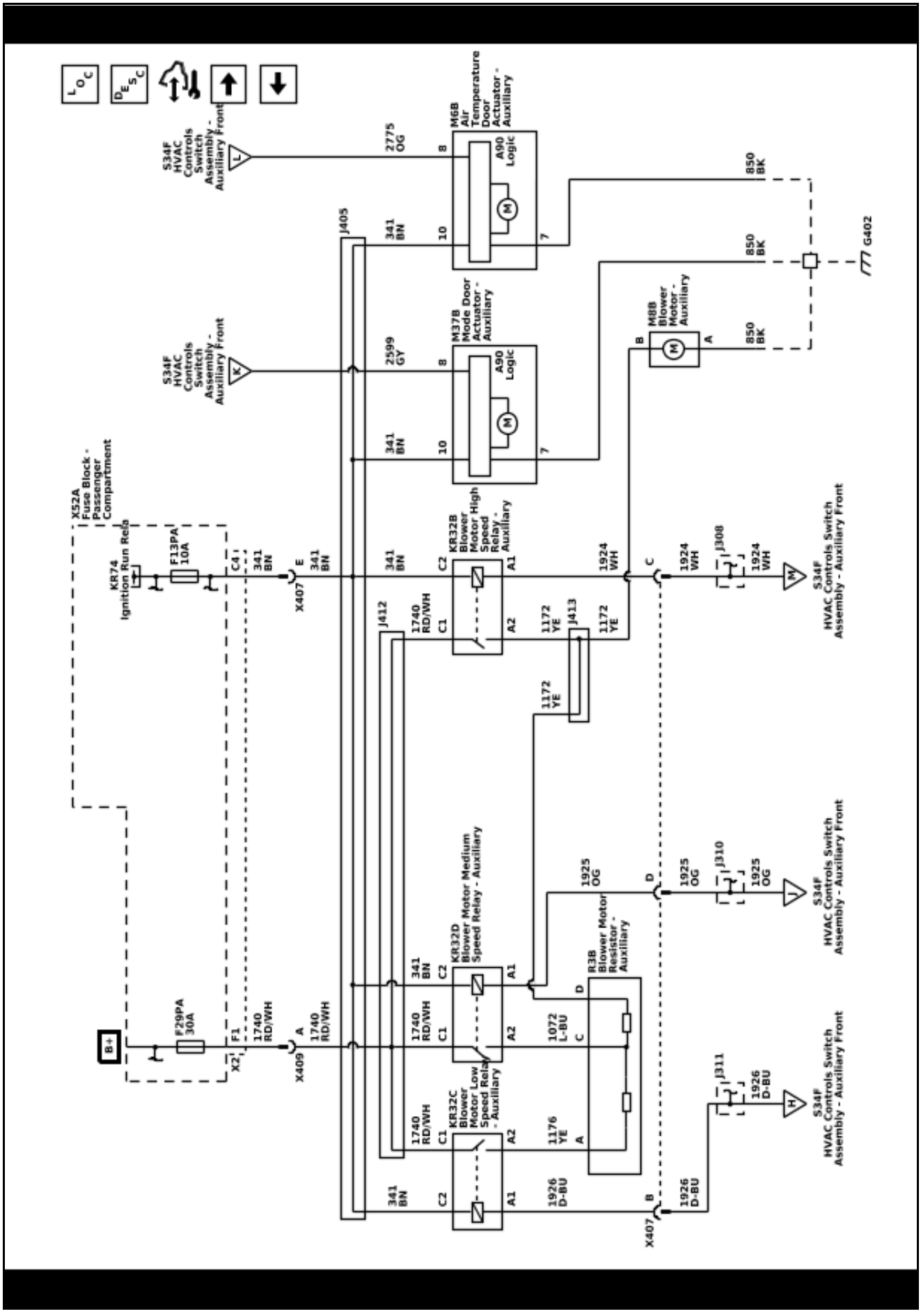
HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), with Rear HVAC Controls - Front Controls)



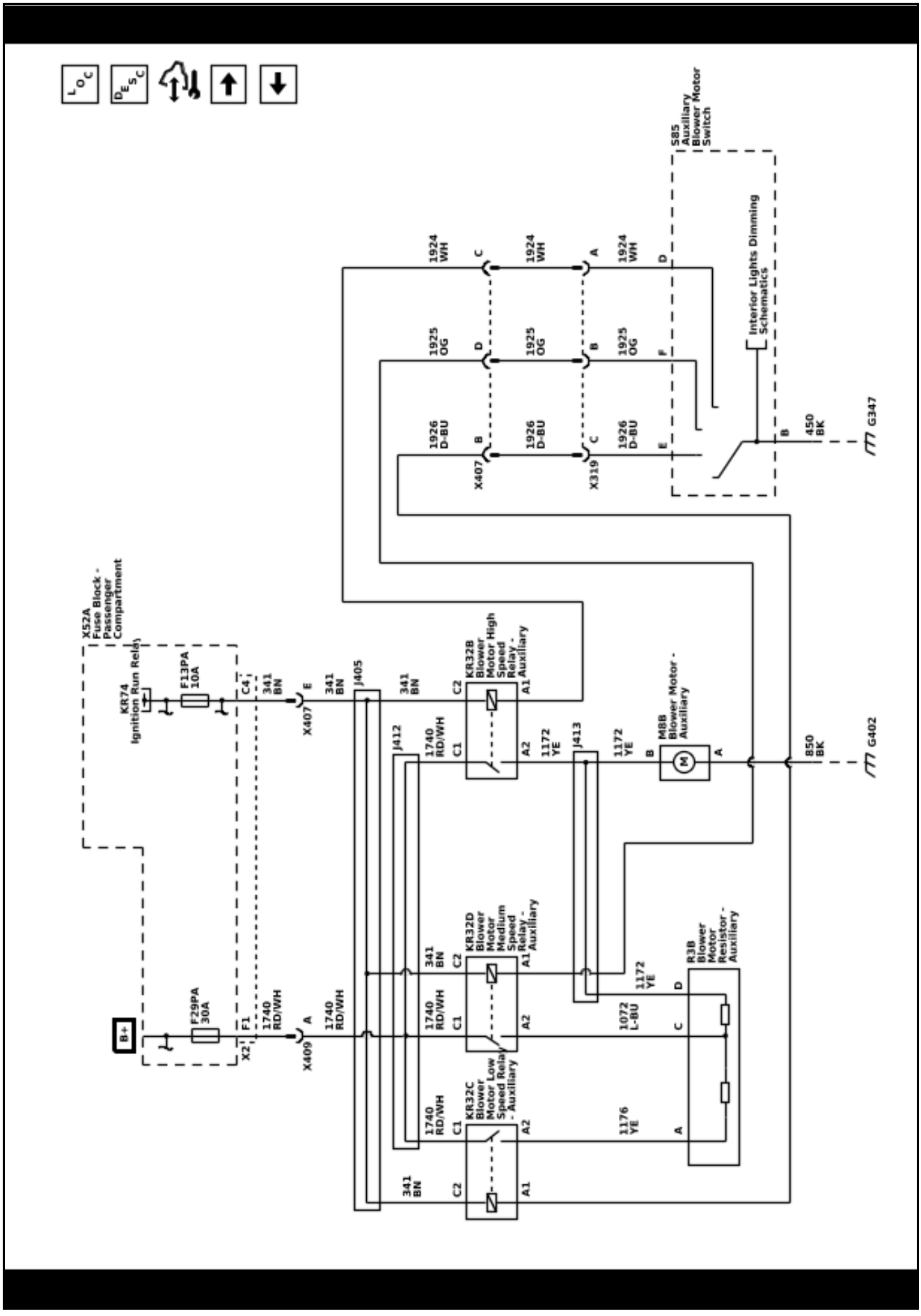
HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), without Rear HVAC Controls - Air Delivery Controls)



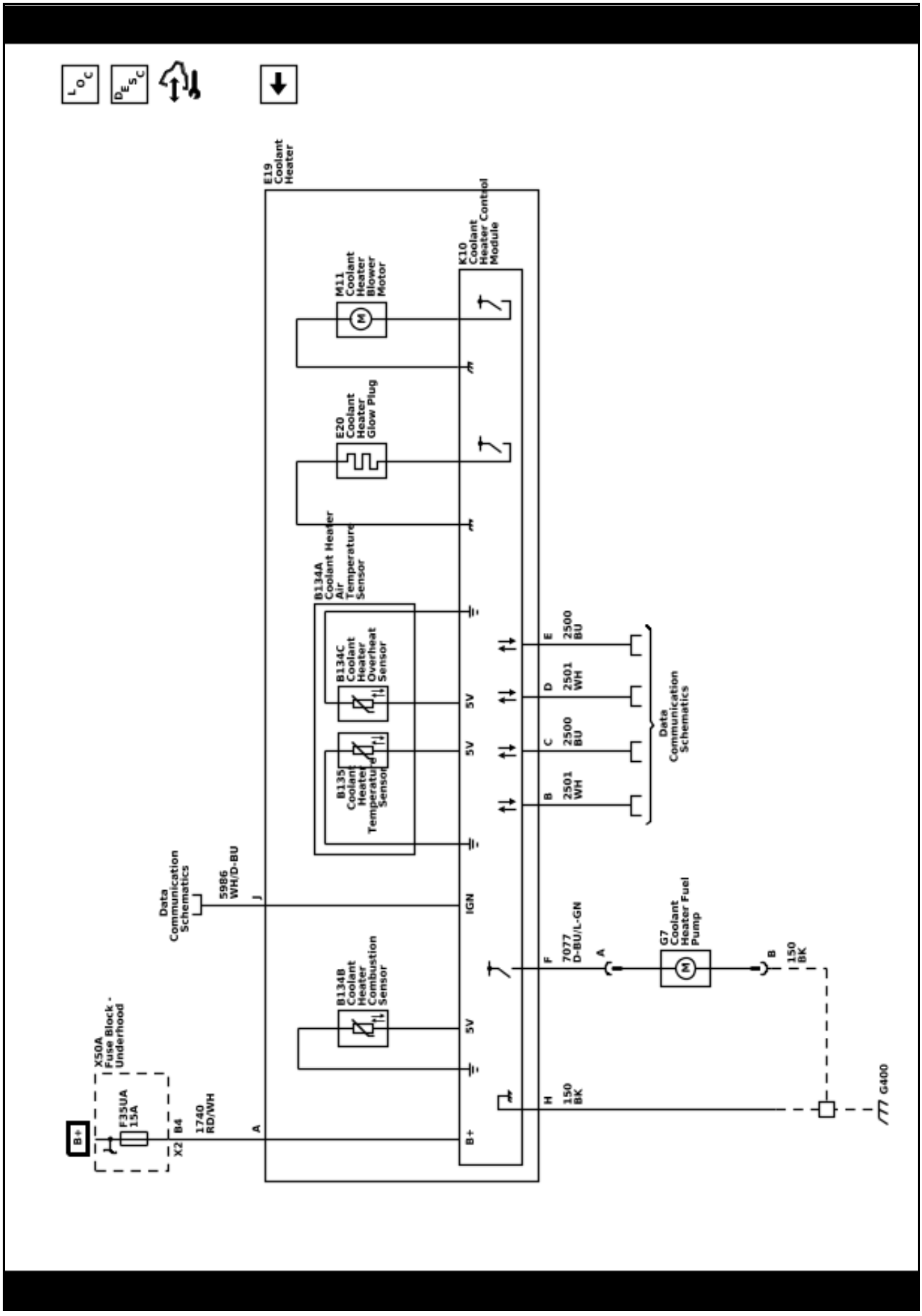
HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), without Rear HVAC Controls - Front Controls)



HVAC Schematics (Rear HVAC without Rear Air Conditioning (C36 without C69))



HVAC Schematics (Coolant Heater (K08))



Description and Operation

Air Delivery Description and Operation

The air delivery description and operation is divided into the following:

- HVAC Control Assembly
- Air Speed
- Auxiliary Air Speed
- Air Distribution
- Auxiliary Air Delivery

HVAC Control Assembly

The HVAC control assembly is a non-class 2 device that interfaces between the operator and the HVAC system to maintain air temperature and distribution settings. The ignition 3 voltage circuit provides power to the control assembly. Two integrated potentiometers control air temperature door position and blower motor speed. The integrated vacuum system controls the position of the mode doors.

Air Speed

The HVAC control assembly applies voltage to the blower motor control circuit that corresponds to the selected blower speed. The resistors and the blower motor are in a series circuit. The following list represents the number of resistors in series with the blower motor per particular speed request:

- Low speed-3 resistors
- Medium 1 speed-2 resistors
- Medium 2 speed-1 resistor

When the operator requests High speed, the HVAC control assembly applies voltage to the blower motor relay through the high blower motor control circuit. The voltage energizes the blower motor relay, connecting the blower motor to battery positive voltage.

Auxiliary Air Speed

The auxiliary HVAC control assembly applies voltage to the auxiliary blower motor control circuit that corresponds to the selected blower speed. The resistors and the blower motor are in a series circuit. The following list represents the number of resistors in series with the blower motor per particular speed request:

- Low speed-2 resistors
- Medium speed-1 resistor

When the operator requests High speed, the HVAC control assembly applies voltage to the blower motor relay through the auxiliary high blower motor control circuit. The voltage energizes the blower motor relay, connecting the blower motor to battery positive voltage.

Air Distribution

The HVAC control assembly uses vacuum to control the mode door position. Vacuum is supplied to the control assembly and a vacuum tank by either an engine vacuum source, or a vacuum pump when the vehicle is equipped with a diesel engine..

Vacuum Pump (Diesel Engines)

The mechanical vacuum pump operates when the engine is running. The vacuum pump supplies vacuum to the HVAC control assembly and vacuum tank.

Mode Switch

The mode switch is a rotary vacuum valve that directly applies vacuum to the appropriate vacuum actuator. Use the mode switch to change the air delivery mode in the vehicle.

MAX A/C (If Equipped)

The mode switch applies vacuum to ports 1, 3, and 4. The mode actuators have vacuum applied to them, directing airflow to the vents. The recirculation actuator has vacuum applied to it positioning the recirculation door to recirculate air within the vehicle. A/C compressor operation is requested.

A/C (If Equipped)

The mode switch applies vacuum to ports 1 and 3. The mode actuators have vacuum applied to them, directing airflow to the vents. A/C compressor operation is requested.

Bi-Level Mode

The mode switch applies vacuum to ports 3 and 5. The inner mode and defrost actuators have vacuum applied to them, directing airflow to the vents and floor.

Vent Mode

The mode switch applies vacuum to ports 1 and 3. The mode actuators have vacuum applied to them, directing airflow to the vents.

Floor Mode

The mode switch applies vacuum to port 5. The defrost actuator has vacuum applied to it, directing airflow to the floor.

Mix-Blend Mode

The mode switch vents all ports. With no vacuum at any port, the following occurs:

- Vacuum is bled off the defrost actuator, keeping it in a neutral position. The defroster door is held stationary in the half-open directing airflow through the defroster and floor outlets.
- A/C compressor operation is requested.

Defrost Mode

The mode switch applies vacuum to port 7 and the following occurs:

- The defrost actuator has vacuum applied to it directing airflow through the defroster outlet.
- A/C compressor operation is requested.

Auxiliary Air Distribution (C69)

Auxiliary HVAC Control Processor

The auxiliary HVAC control processor controls all outputs for the auxiliary HVAC system. The auxiliary HVAC control processor receives inputs from the front and rear auxiliary HVAC control assemblies. The auxiliary HVAC control processor does not utilize Class 2 communications. If the auxiliary HVAC control processor receives a 12V varied voltage input for an

auxiliary air temperature actuator change request. Then the auxiliary HVAC control processor creates a 12V varied output for control of the auxiliary air temperature actuator.

Auxiliary Mode Actuator

The auxiliary mode actuator is a 3 wire bi-directional electric motor. Ignition 3 voltage, ground and control circuits enable the actuator to operate. The control circuit uses a 0-12V linear-ramped signal to command the actuator movement. The 0 and 12V control values represent the opposite limits of the actuator range of motion. The values in between 0 and 12V correspond to the positions between the limits. When the HVAC control assembly sets a commanded, or targeted, value, the control signal is set to a value between 0-12V. The actuator shaft rotates until the commanded position is reached. The module will maintain the control value until a new commanded value is needed.

The rear auxiliary air delivery and the temperature controls work independently of the ventilation controls used for the front of the vehicle. The rear auxiliary mode door and the rear auxiliary temperature door are exclusively controlled from either of the 2 auxiliary HVAC controls. The front auxiliary HVAC controls has a permissive position called REAR. The REAR position enables control from the rear auxiliary HVAC controls.

Air Temperature Description and Operation

The air temperature controls are divided into five areas.

- HVAC Control Components
- Heating and A/C Operation
- Auxiliary Heating and A/C Operation
- Engine Coolant
- A/C Cycle

HVAC CONTROL COMPONENTS

HVAC Control Assembly

The HVAC control assembly is a non-class 2 device that interfaces between the operator and the HVAC system to maintain air temperature and distribution settings. The ignition 3 voltage circuits provide power to the control assembly. Two integrated potentiometers control air temperature door position and blower motor speed. The integrated vacuum system controls the mode door position.

Auxiliary HVAC Control Processor

The auxiliary HVAC control processor controls all outputs for the auxiliary HVAC system. The auxiliary HVAC control processor receives inputs from the front and rear auxiliary HVAC control assemblies. The auxiliary HVAC control processor does not utilize Class 2 communications.

If the auxiliary HVAC control processor receives a 12-volt varied voltage input for an auxiliary air temperature actuator change request. Then the auxiliary HVAC control processor creates a 12-volt varied output for control of the auxiliary air temperature actuator.

Air Temperature Actuator

The air temperature actuator and auxiliary air temperature actuator are a 3-wire bi-directional electric motor. Ignition 3 voltage, ground and control circuits enable the actuator to operate. The control circuit uses a 0–12-volt linear-ramped signal to command the actuator movement. The 0 and 12-volt control values represent the opposite limits of the actuator range of motion. The values in between 0 and 12 volts correspond to the positions between the limits.

When the HVAC control assembly sets a commanded, or targeted, value, the control signal is set to a value between 0–12 volts. The actuator shaft rotates until the commanded position is reached. The module will maintain the control value until a new commanded value is needed.

A/C Pressure Switches

The A/C system is protected by two A/C pressure switches.

- A/C low pressure switch
- A/C high pressure switch

The A/C high pressure switch interrupts the A/C request signal when the A/C line pressure is more than a predetermined value. The A/C low pressure switch interrupts the A/C low pressure switch signal when the A/C line pressure is less than or more than a predetermined value. When the powertrain control module (PCM) stops receiving the required signals, the A/C compressor clutch relay control circuit is no longer grounded, disengaging the A/C compressor clutch. The A/C compressor clutch is disengaged under the following conditions:

- A/C low pressure switch is less than 152 kPa (22 psi).
- A/C low pressure switch is more than 310 kPa (45 psi).
- A/C high pressure switch is more than 2896 kPa (420 psi).

Bypass Valves

The bypass valves included in the air temperature system are:

- Coolant Bypass Valve
- Hot Water Bypass Valve

The bypass valve is a normally open valve, which closes when vacuum is applied to the valve. When the MAX A/C mode is selected, vacuum from the HVAC control assembly is applied to the bypass valve. The vacuum must be strong enough to overcome the tension of the valve's internal return spring in order to close the bypass valve. The return spring forces the valve to return to the open position, when any of the other HVAC modes are selected. In the closed position, the flow of coolant to the heater core is bypassed, allowing maximum cooling to the passenger compartment.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. The vehicle operator can determine the passenger compartment

temperature by adjusting the air temperature switch. Regardless of the temperature setting, the following can effect the rate that the HVAC system can achieve the desired temperature:

- Recirculation
- Difference between inside and desired temperature
- Difference between ambient and desired temperature
- Blower motor speed setting
- Mode setting
- Auxiliary HVAC settings

The A/C system can be engaged by placing the mode switch in one of the following positions:

- Max A/C
- A/C
- Bi-Level
- Blend
- Defrost

The A/C system can operate regardless of the temperature setting. Regardless of the selected A/C mode setting, a request is sent to the PCM to turn on the A/C compressor clutch.

The following conditions must be met in order for the PCM to turn on the compressor clutch:

- Ambient air temperature is greater than 3°C (38°F)
- Engine coolant temperature (ECT) is less than 123°C (253°F)
- Engine speed is less than 5000 RPM
- The A/C compressor cycling switch pressure is between 124-388 kPa (18-49 psi)
- The A/C high pressure cutout switch is less than 2896 kPa (420 psi)

Once engaged, the compressor clutch will be disengaged for the following conditions:

- Throttle position is 100 percent
- The A/C compressor cycling switch pressure is less than 124 kPa (18 psi) or more than 338 kPa (49 psi)
- The A/C high pressure cutout switch is more than 2896 kPa (420 psi)
- Engine coolant temperature (ECT) is more than 123°C (253°F)
- Engine speed is more than 5000 RPM
- Transmission shift
- PCM detects excessive torque load
- PCM detects insufficient idle quality
- PCM detects a hard launch condition

When the compressor clutch disengages, the compressor clutch diode protects the electrical system from a voltage spike.

Heater Mode – Auxiliary Heater without A/C

The auxiliary blower motor recycles air from the vehicle's interior. The vehicle operator can determine the intensity of the auxiliary heater by placing the auxiliary blower motor in one of the following positions:

- Low
- Med
- High

Since there is no temperature switch, the temperature is controlled by the speed of the auxiliary blower motor. The auxiliary blower motor will only operate when the ignition is in the RUN position, and the auxiliary blower motor switch is in any position other than OFF.

Heater Mode – Front Auxiliary HVAC Control Assembly Only

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the instrument panel (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

Heater Mode – Front Auxiliary HVAC Control Assembly with Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a varied resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature

Heater Mode – Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the rear auxiliary HVAC control assembly allows the rear seat passengers to adjust the temperature in the rear of the vehicle. Power is provided to the rear auxiliary HVAC control assembly, auxiliary HVAC control processor and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

To activate the rear auxiliary HVAC control assembly, the front auxiliary HVAC control assembly must be placed in the REAR CNTL position. Ignition 3 voltage is sent to the auxiliary HVAC control processor. When the switch is placed in the REAR CNTL position, the voltage is grounded through the auxiliary blower motor switch control, front auxiliary HVAC control assembly and the ground circuit to allow the rear auxiliary HVAC control assembly to operate the auxiliary temperature actuator. Voltage delivered to the rear auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Front Auxiliary HVAC Control Assembly Only

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Front Auxiliary HVAC Control Assembly with Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the rear auxiliary HVAC control assembly allows the rear seat passengers to adjust the temperature in the rear of the vehicle. Power is provided to the rear auxiliary HVAC control assembly, auxiliary HVAC control processor and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

To activate the rear auxiliary HVAC control assembly, the front auxiliary HVAC control assembly must be placed in the REAR CNTL position. Ignition 3 voltage is sent to the auxiliary HVAC control processor. When the switch is placed in the REAR CNTL position, the voltage is grounded through the auxiliary blower motor switch control, front auxiliary HVAC control assembly and the ground circuit to allow the rear auxiliary HVAC control assembly to operate the auxiliary temperature actuator. Voltage delivered to the rear auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a varied resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

Engine Coolant

Engine coolant is the key element of the heating system. The thermostat controls engine operating coolant temperature. The thermostat also creates a restriction for the cooling system that promotes a positive coolant flow and helps prevent cavitation. Coolant enters the heater core through the inlet heater hose, in a pressurized state.

The heater core is located inside the HVAC module. The heat of the coolant flowing through the heater core is absorbed by the ambient air drawn through the HVAC module. Heated air is distributed to the passenger compartment, through the HVAC module, for passenger comfort.

The amount of heat delivered to the passenger compartment is controlled by opening or closing the HVAC module air temperature door. The coolant exits the heater core through the return heater hose and recirculated back through the engine cooling system.

Coolant Heater (K08)

The coolant heater function is to provide additional heat to the passenger compartment. The coolant heater burns diesel fuel, to heat up the engine coolant when the vehicle is running and will only operate during conditions where ambient temperature is below 4°C (39°F) and a fuel tank level greater than 12.5 percent. The heat of the hot engine coolant is transferred to the HVAC module to heat the passenger compartment. The coolant heater does not heat up instantly. It must go through a self test and start up procedure before normal operation. The vehicle must be running to start the unit but after the unit is no longer commanded on a two minute shut down (purge) procedure starts. The coolant flow is from the engine to the fuel operated heater through the heat exchanger back to the engine.

Battery voltage and ground is supplied to the coolant heater. The electronic control unit inside the coolant heater determines when the unit will turn ON and OFF as well as how it will function. The electronic control unit also uses GMLAN communication and the engine control module (ECM) to transfer coolant heater information that the scan tool can read. The fuel operated heater contains flame sensors to disable the glow plug once the flame is established or to abort the startup attempt if the flame is not established.

Inputs to the coolant heater electronic control unit:

- Coolant sensor
- Overheat sensor
- Combustion sensor
- GMLAN ECM

Outputs from the coolant heater electronic control unit:

- Fuel pump
- Glow plug
- Blower motor
- GMLAN ECM

The coolant heater controls the coolant temperature with 3 operating modes.

- HIGH—If coolant temperature is in a range between −40 to +75°C (−40 to +176°F), the coolant heater fuel pump will pump fuel at maximum capacity to increase the coolant temperature as fast as possible. Note: Ambient temperature must be below 4°C (39°F), fuel tank level greater than 12.5 percent and the engine should be running.
- LOW—If coolant temperature is in a range between 85–90°C (185–194°F), the coolant heater fuel pump will pump fuel at minimum capacity to increase the coolant temperature at a slower rate.
- OFF—If coolant temperature is above 90°C (195° F), the coolant heater fuel pump will stop pumping fuel and allow the remaining fuel in the combustion chamber to burn out. The coolant heater fuel pump will not start pumping fuel again until the coolant temperature reaches 75°C (167°F).

FUNCTIONAL PRINCIPLES:

- The vehicle coolant pump continuously circulates the coolant over the heat exchanger inside the fuel operated heater and throughout the coolant system.
- The coolant heater fuel pump pumps the fuel from the vehicle fuel tank to the combustion chamber.
- Coolant heater blower blows the oxygen, which is necessary for the combustion process, into the combustion chamber.
- A Coolant heater glow plug generates the evaporation energy and creates the temperature which is necessary to ignite the Air-Fuel mixture
- The heat exchanger inside the fuel operated heater transfers the energy of the combustion process into the engine coolant.
- Depending on the coolant temperature, which is detected by the coolant sensors, the heater chooses either high or low setting or gets shut off.

SELF TEST OF THE UNIT:

Before every start of the heater, the operation of the individual components is tested.

- Fuel operated heater control unit check
- Flame sensor
- Coolant sensor
- Overheating sensor
- Glow plug
- Fuel pump
- Blower motor

The fuel operated heater will only start after the self test of the heating unit is successful. Should a fault be detected, a fault notification will be output through the vehicle diagnosis.

DESCRIPTION OF SAFETY MECHANISM :

During start up the ECU is performing a random access memory (RAM), read-only memory (ROM) and electrically erasable programmable read-only memory (EEPROM) test. If failures occur during a self test of the unit, the unit will not start.

- If the power supply voltage exceeds 16 volts the unit will not start or shut off with after purge time of 120 seconds.
- If the power supply voltage goes below 10.2 V for more than 40 seconds the unit will shut off and try to restart after a purge time of 120 seconds. If the failure occurs 3 times, then unit is not going to restart till next key off.

Description of component checks:

- Coolant Heater Blower Motor—After the unit is commanded on and before normal operation the blower is tested for an open circuit. While the heater is activated the blower is tested for a short to ground.
- Flame sensor—The flame sensor is tested continuously during operation for a short to ground, short to voltage or open circuit.
- Glow plug—After the unit is commanded and before normal operation the glow plug is tested for an open circuit. While the heater is activated the glow plug is tested for a short to ground.
- Coolant Heater Fuel Pump—After the coolant heater is commanded on and before normal operation is activated, the fuel pump is tested for an open circuit. While the coolant heater is activated the fuel pump is tested for a short to ground.
- Overheating Sensor and Coolant sensor—The overheat sensor and coolant sensor are tested continuously during operation for a short to ground, short to voltage or open circuit.

FIRST START OF THE UNIT (125 seconds):

After the self test was successfully completed a first start procedure sequence is attempted.

1. The ceramic glow plug starts to heat the combustion chamber.
2. After a delay, the blower switches on. During the start procedure, the blower continuously increases blowing speed.
3. The fuel pump pumps fuel into the combustion chamber. The cycle frequency of the fuel pump is also continuously increased during the start procedure.
4. The glow plug starts to vaporize the fuel, and creates the temperature to ignite the fuel.
5. After ignition, the heater runs continuously to reach the maximum heating power.
6. After the flame sensor has detected the flame, the start procedure is complete, and the glow plug switches off.

SECOND START OF THE UNIT (125 seconds):

If the first start is not successful, the heater attempts a second restart process. In doing this, the glow plug voltage is increased, in order to obtain better starting conditions. The first start sequence is then repeated.

UNSUCCESSFUL SECOND START:

If the second start is not successful in igniting the heater, a fault code is output from the heater.

- A new attempt to start will only occur after the ignition switch is cycled.
- After 10 failed ignition cycles one after the other, all further start attempts are stopped by the control unit. This inhibit state can only be released by clearing the codes with a scan tool.

A/C Cycle

Refrigerant is the key element in an air conditioning system. R-134a is presently the only EPA approved refrigerant for automotive use. R-134a is an very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system. The A/C system is mechanically protected with the use of a high pressure relief valve. If the high pressure switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line, to the orifice tube.

The orifice tube is located in the liquid line between the condenser and the evaporator. The orifice tube is the dividing point for the high and the low pressure sides of the A/C system. As the refrigerant passes through the orifice tube, the pressure on the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to vaporize at the orifice tube. The orifice tube also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the orifice tube flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator.

The refrigerant exits the evaporator through the suction line and back to the compressor, in a vapor state, and completing the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the HVAC module for passenger comfort. The heat and moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC module as water.

A/C Cycle with Auxiliary

The auxiliary A/C system operates from the vehicles primary A/C system. The front or primary A/C system must be ON to allow the rear A/C system to function.

Refrigerant is the key element in an air conditioning system. R-134a is presently the only EPA approved refrigerant for automotive use. R-134a is an very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The A/C system used on this vehicle is a non cycling system. Non cycling A/C systems use a high pressure switch to protect the A/C system from excessive pressure. The high pressure switch will OPEN the electrical signal, to the compressor clutch, in the event that the refrigerant pressure becomes excessive. After the high and low side of the A/C system pressure equalize, the high pressure switch will CLOSE. Closing the high pressure switch will complete the electrical circuit to the compressor clutch. The A/C system is also mechanically protected with the use of a high pressure relief valve. If the high pressure switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line. The liquid line flow is split and the liquid refrigerant flows to both the front or primary A/C system, and to the liquid line for the rear A/C system.

The liquid refrigerant, flowing to the rear A/C system, flows into the rear TXV. The rear TXV is located at the rear evaporator inlet. The TXV is the dividing point for the high and the low pressure sides of the rear A/C system. As the refrigerant passes through the TXV, the

pressure on the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to boil at the expansion device. The TXV also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the TXV flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the rear A/C module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the primary A/C systems suction line. Refrigerant in the primary A/C system suction line flows back to the compressor, in a vapor state, and completes the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the rear A/C module for passenger comfort. The heat and moisture removed from the rear passenger compartment will also change form, or condense, and is discharged from the rear A/C module as water.

Section 6

Power and Signal Distribution

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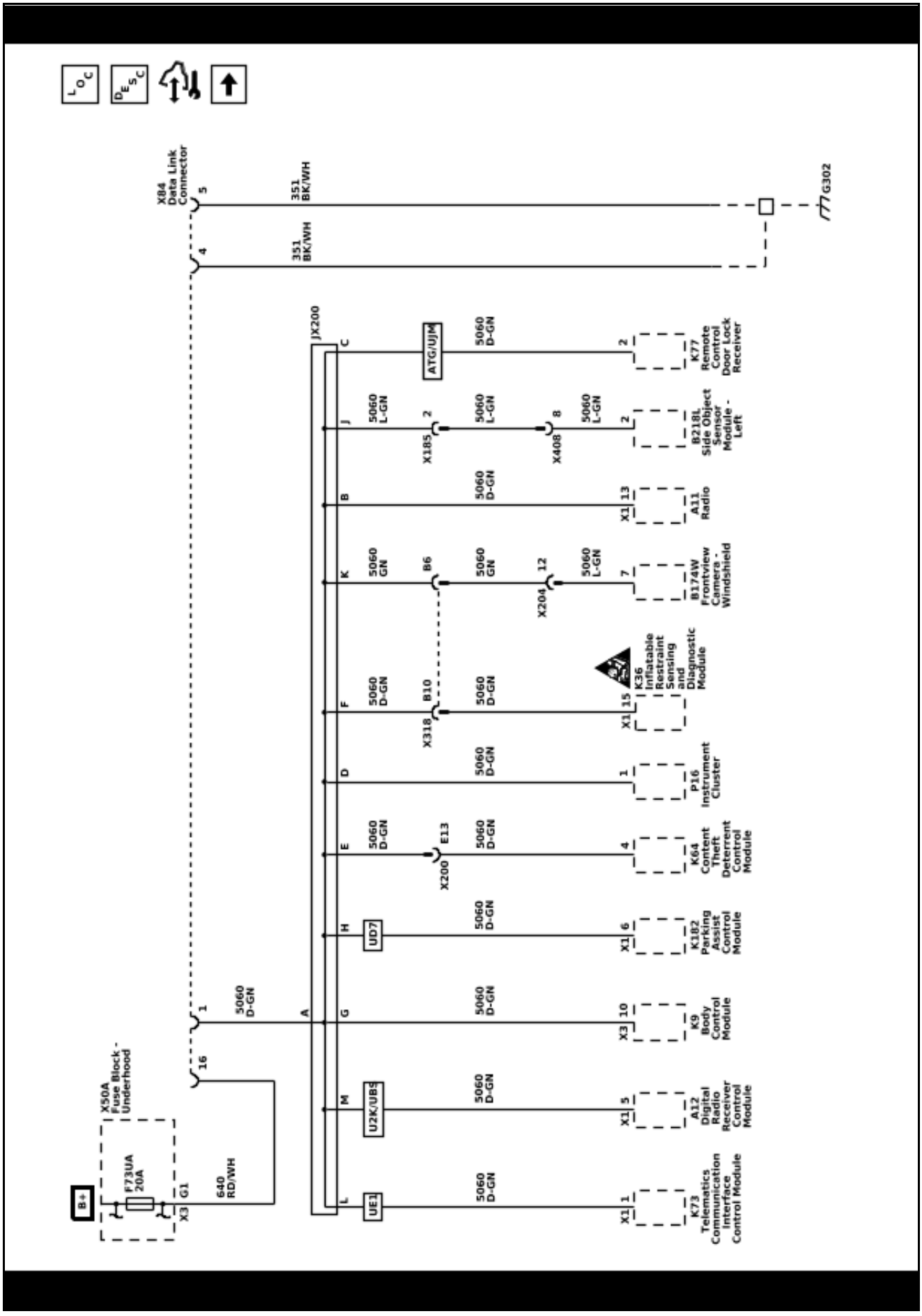
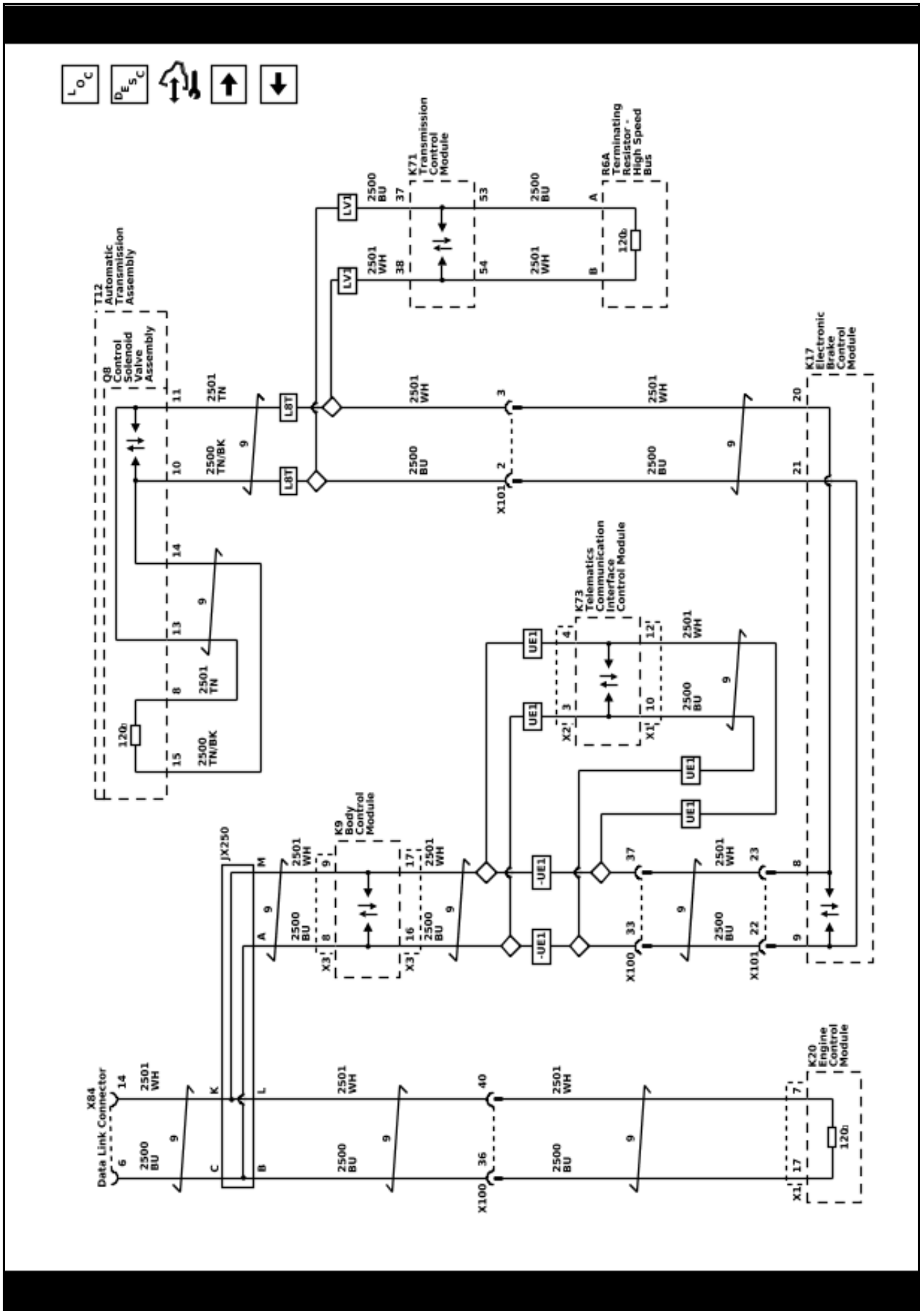
Data Communications

Schematic and Routing Diagrams

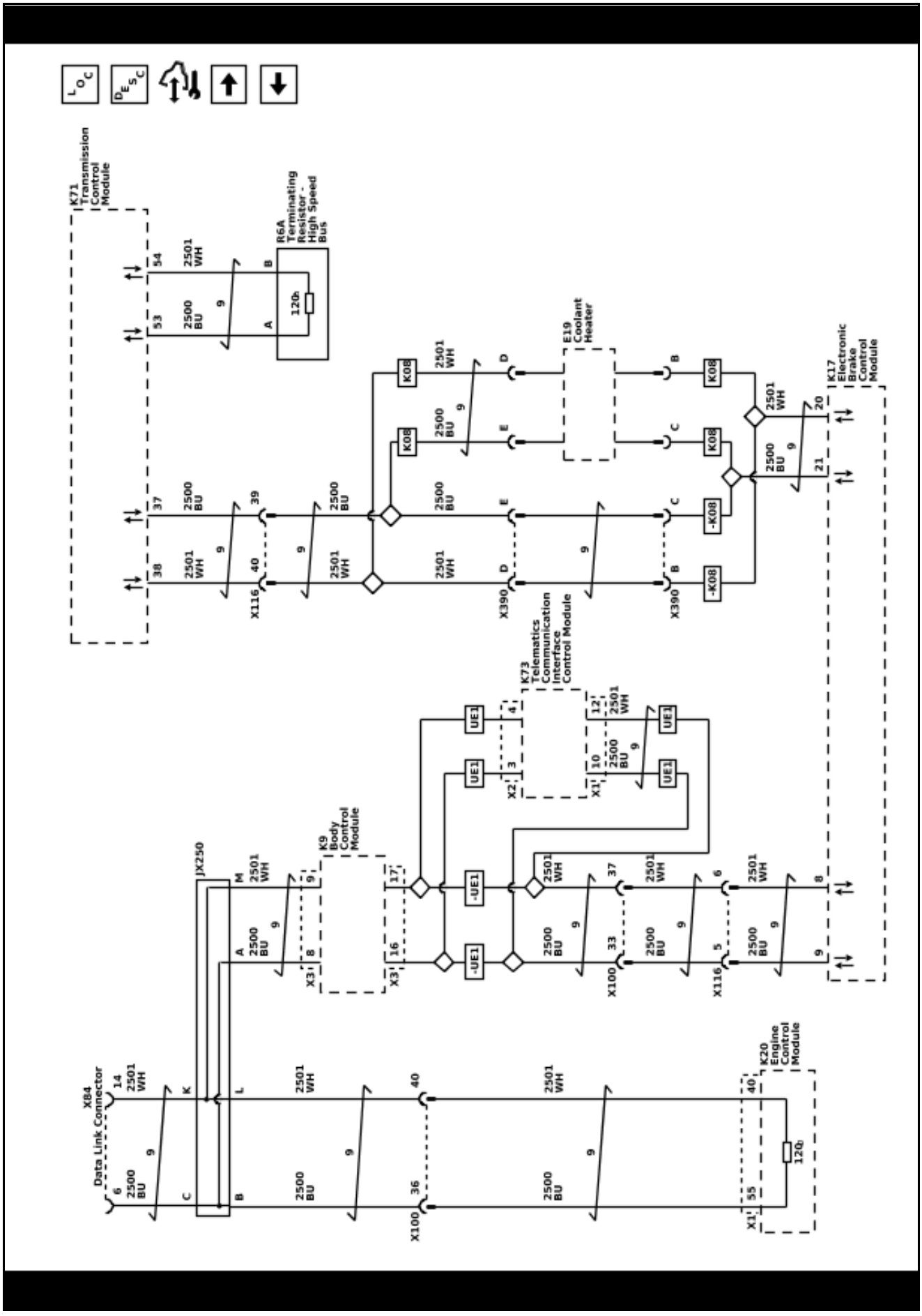
Data Communication Schematics (Low Speed GMLAN)



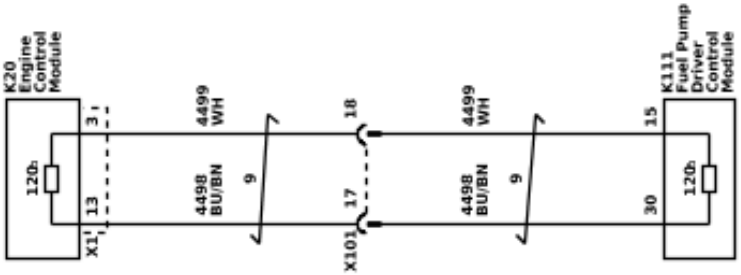
Data Communication Schematics (High Speed GMLAN (Gas))



Data Communication Schematics (High Speed GMLAN (Diesel))



Data Communication Schematics (Powertrain High Speed GMLAN (LV1/L8T))



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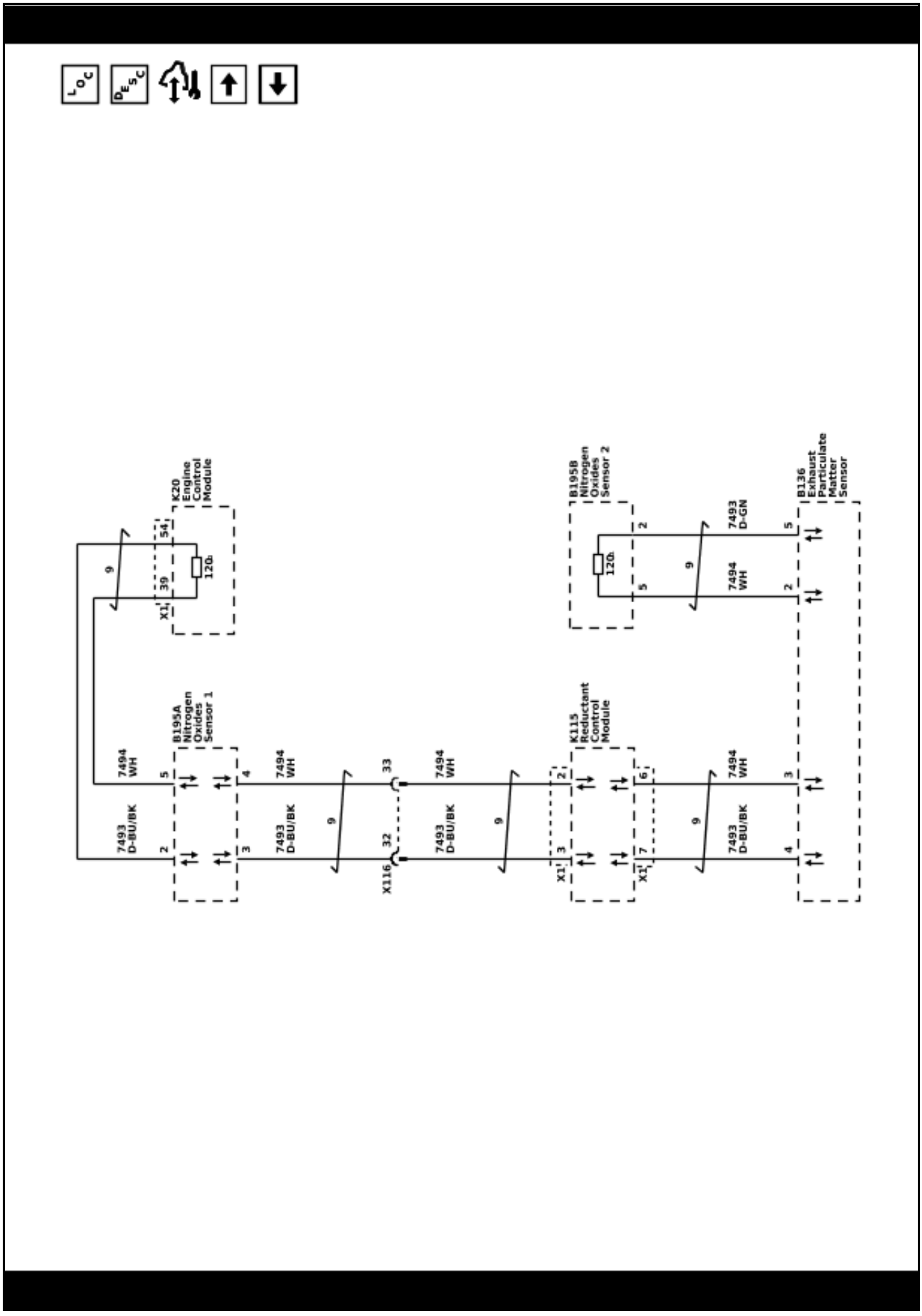
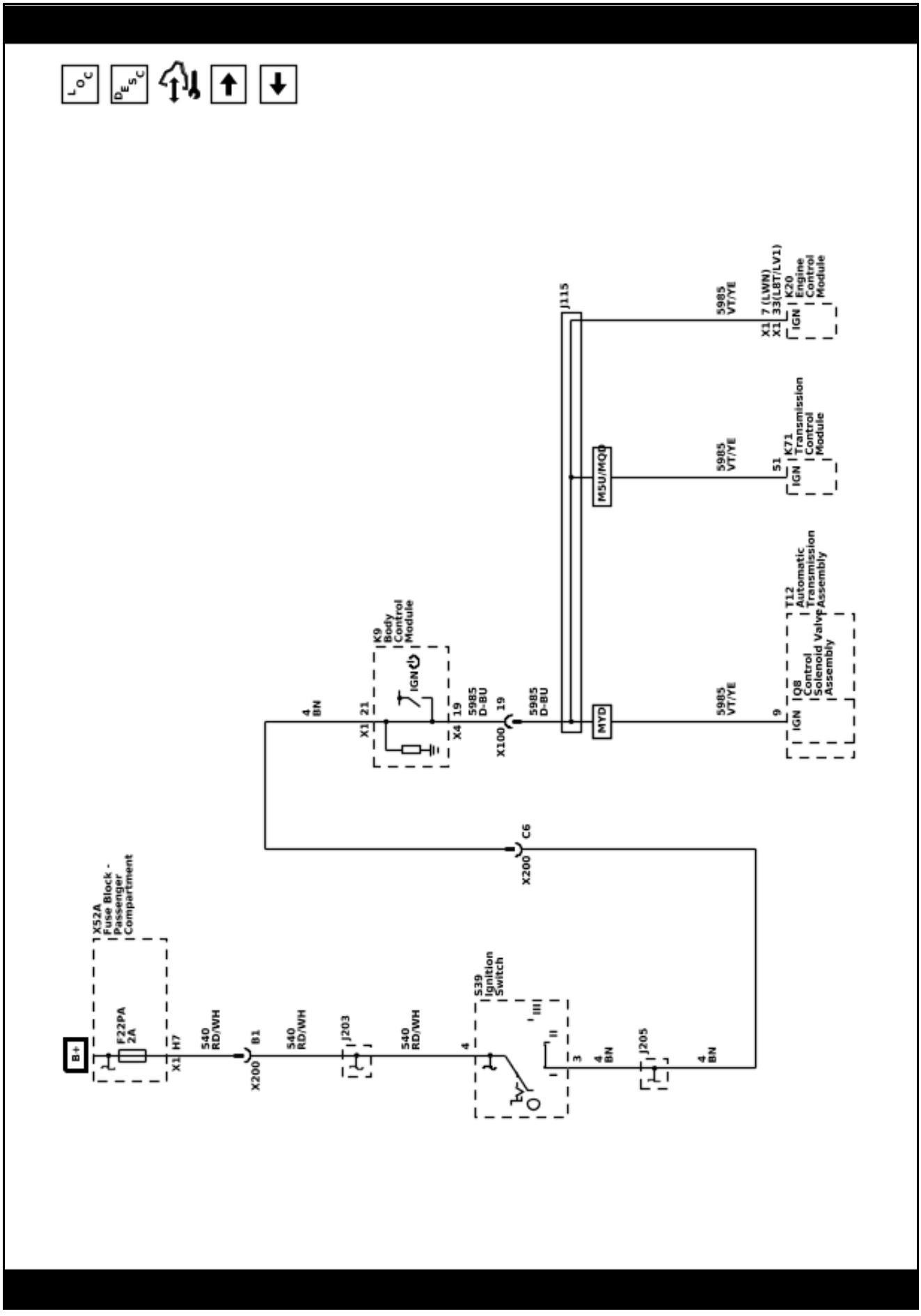
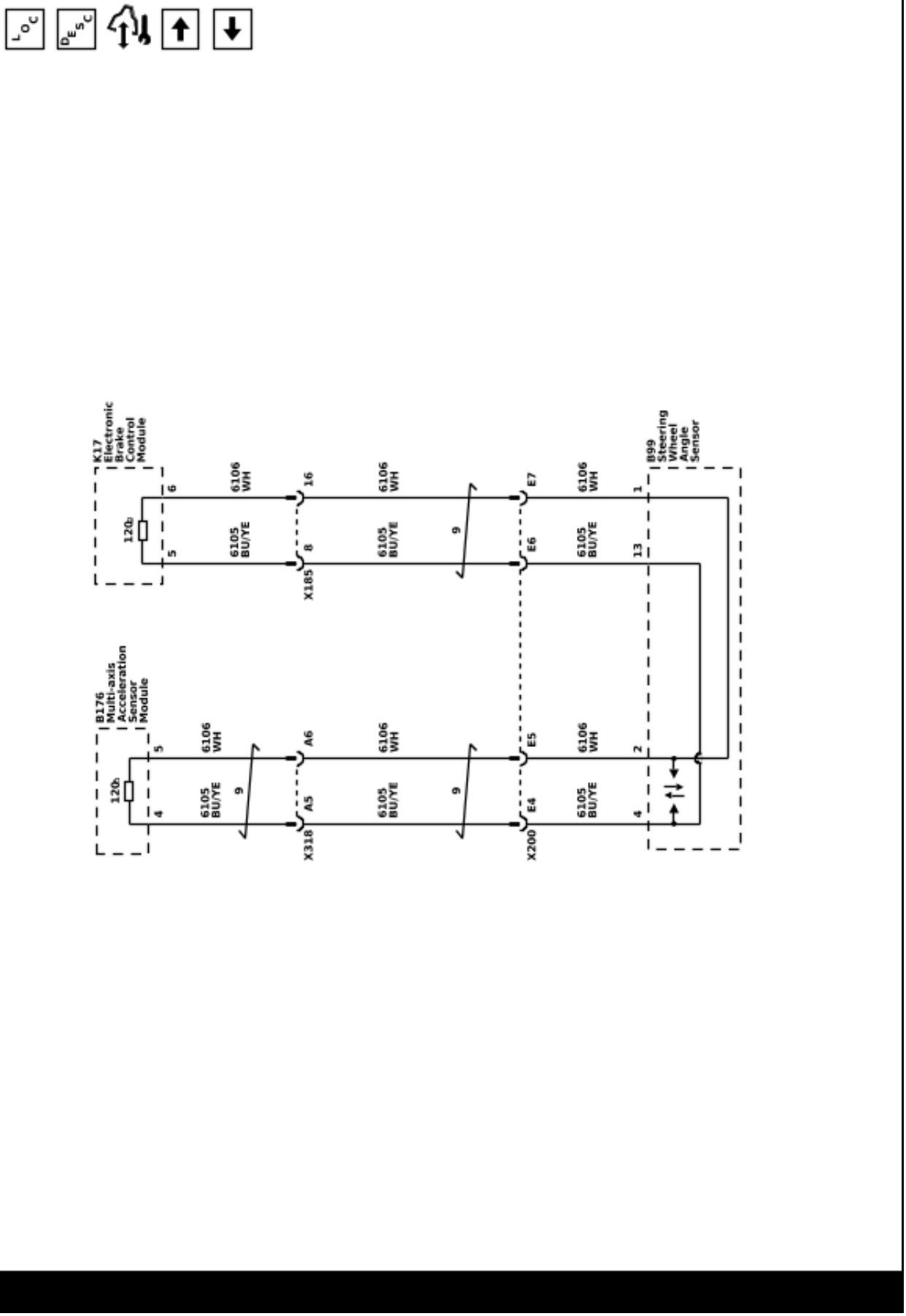
Data Communication Schematics (Powertrain High Speed GMLAN (LWN))



Data Communication Schematics (Accessory Wakeup)

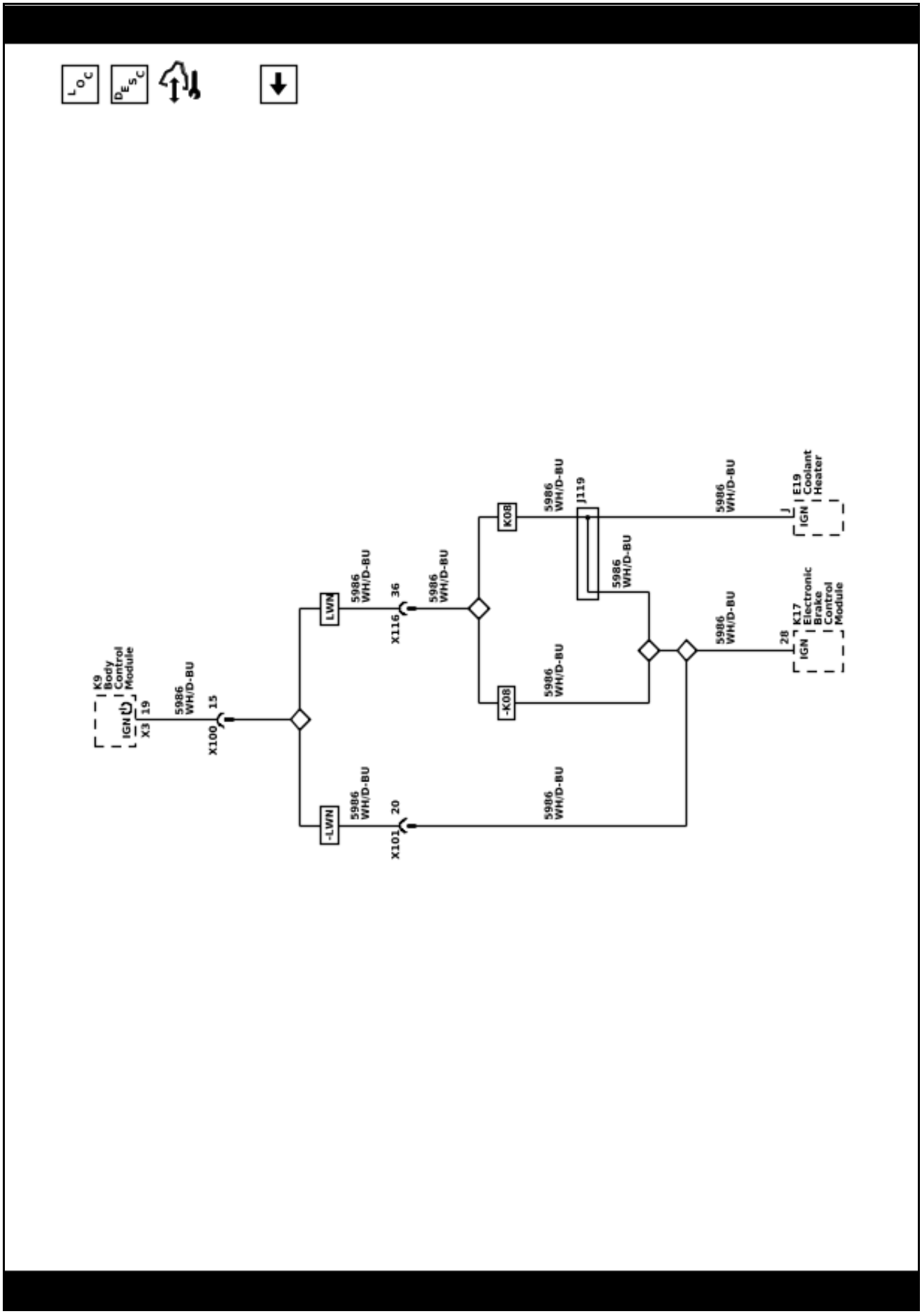


Data Communication Schematics (Chassis High Speed GMLAN)

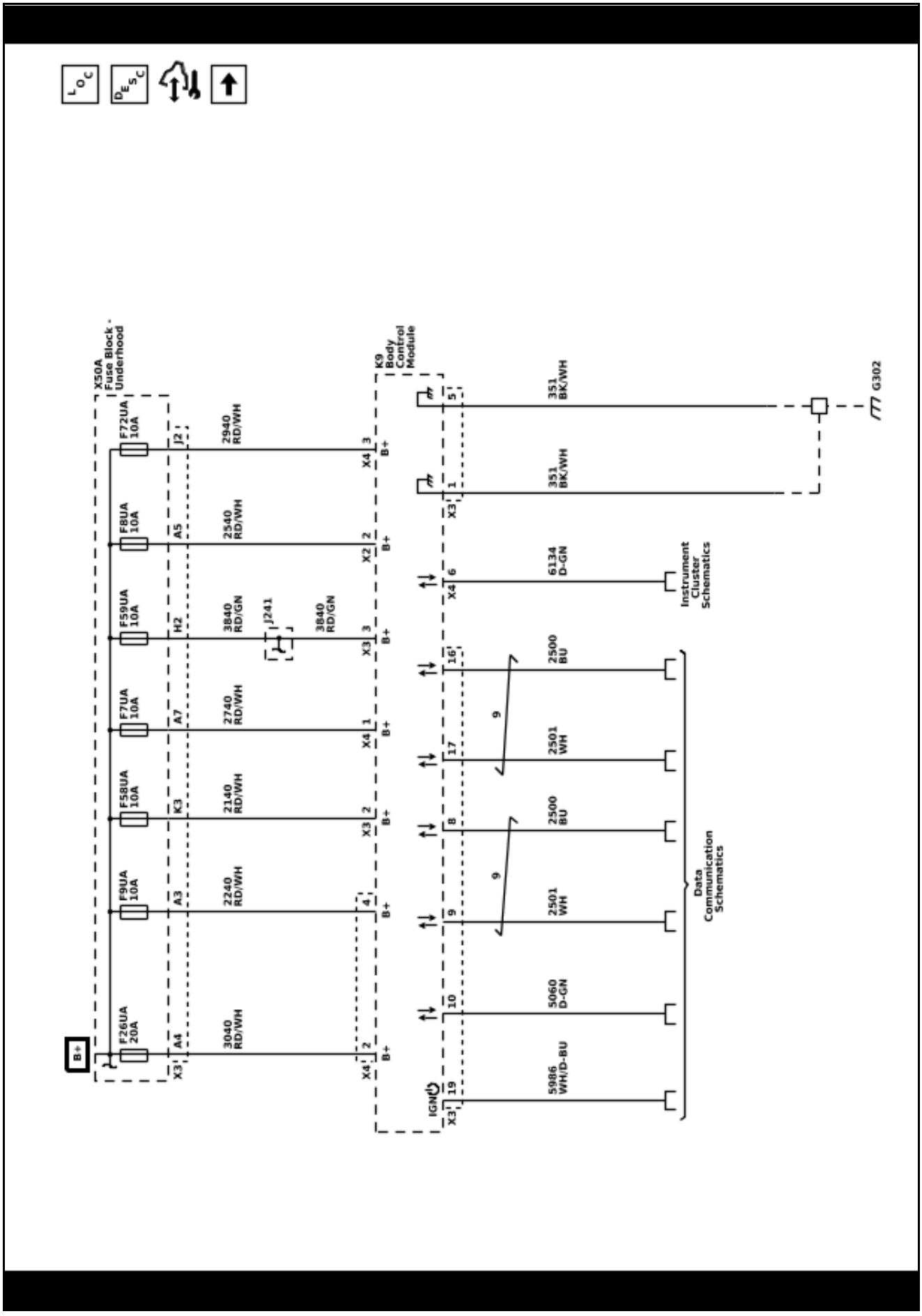


5483169

Data Communication Schematics (Communications Enable)

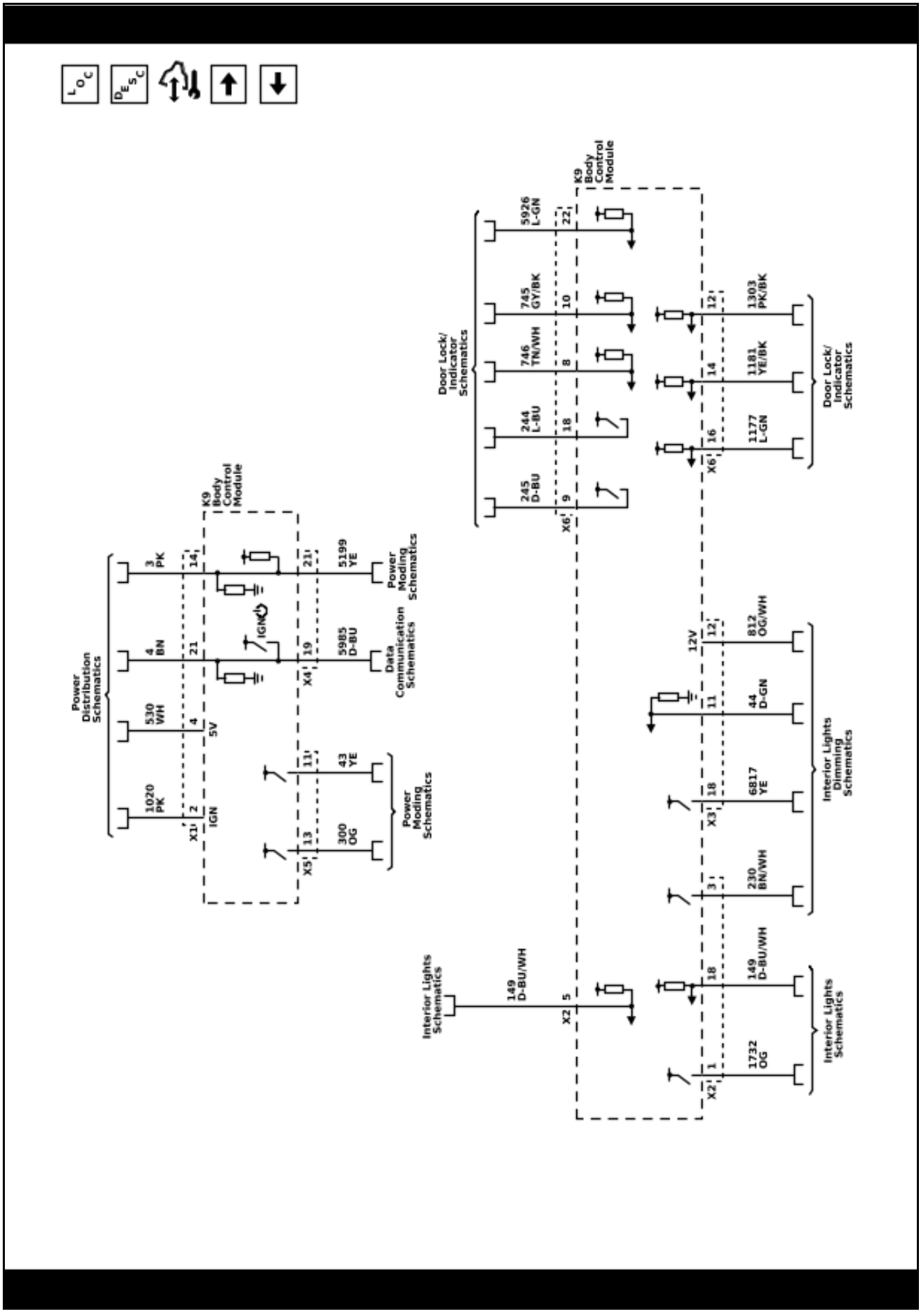


Body Control System Schematics (BCM Power, Ground and Serial Data)



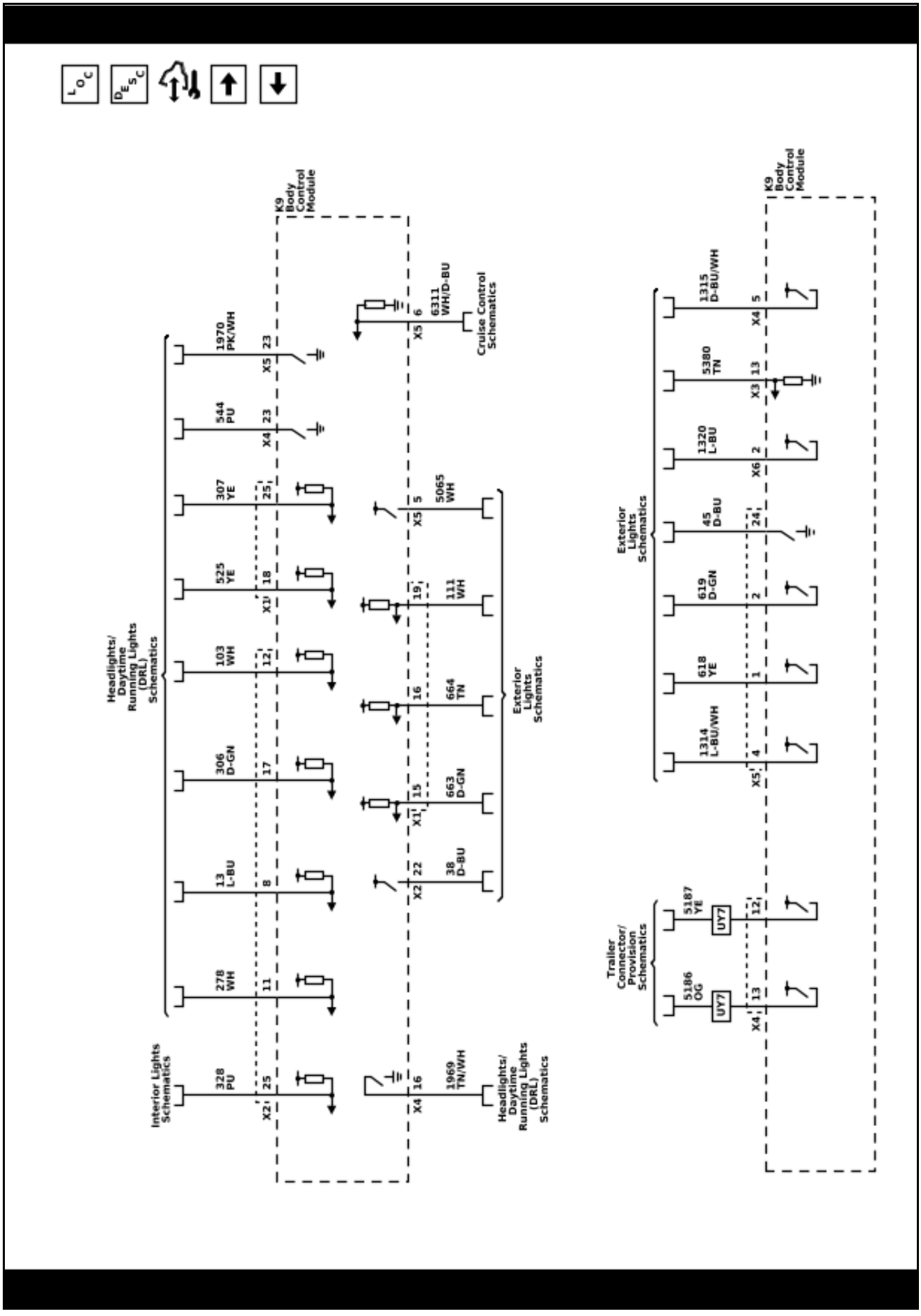
5483171

Body Control System Schematics (BCM Inputs and Outputs (1 of 3))



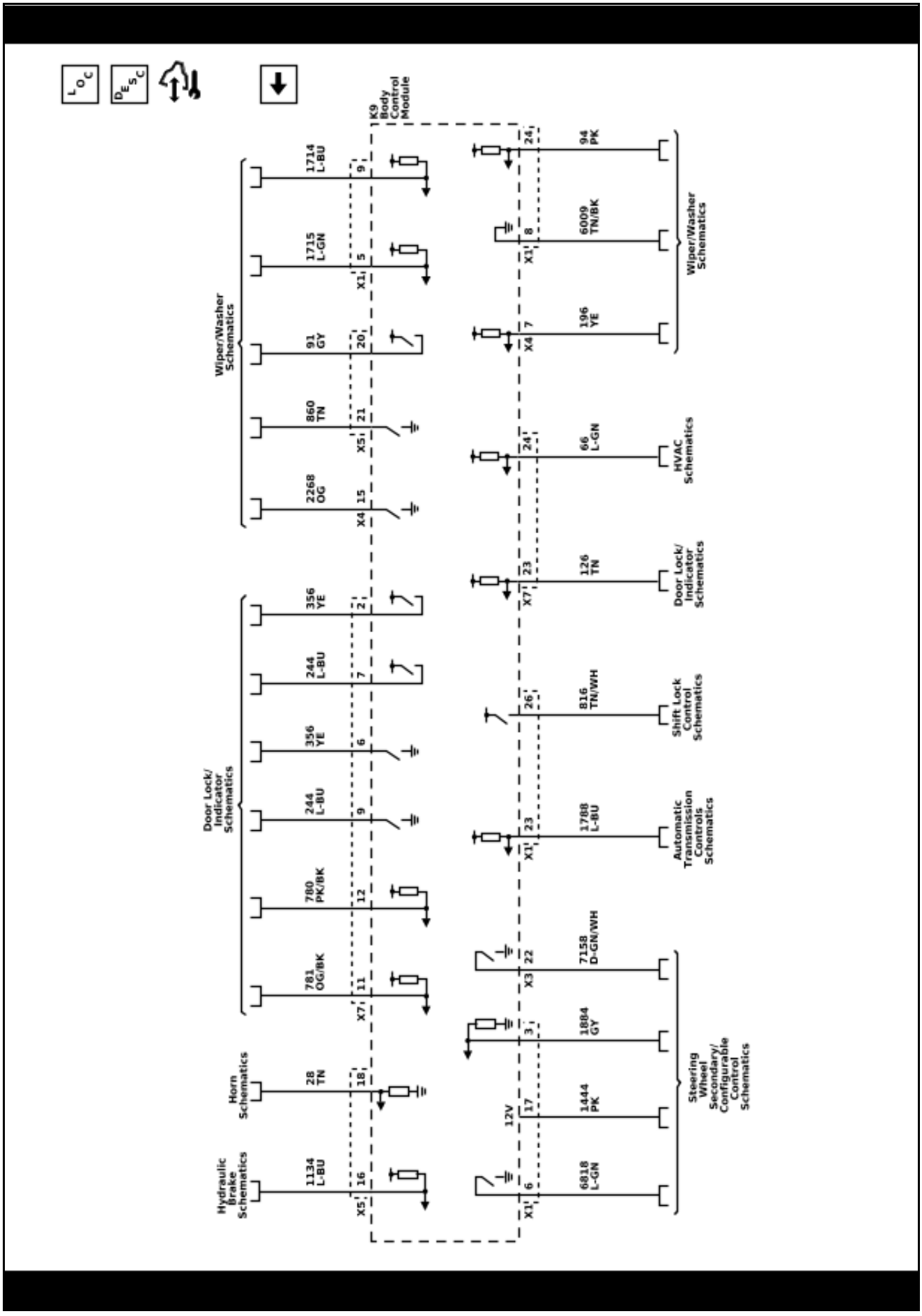
5483172

Body Control System Schematics (BCM Inputs and Outputs (2 of 3))



5483173

Body Control System Schematics (BCM Inputs and Outputs (3 of 3))



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Description and Operation

Body Control System Description and Operation

The body control system consists of the body control module (BCM), communications, and various input and outputs. Some inputs, outputs and messages require other modules to interact with the BCM. The BCM also has discrete input and output terminals to control the vehicle's body functions. The BCM is wired to the GMLAN High speed serial data bus and the GMLAN Low speed serial data bus and acts as a gateway between them. If the BCM does not communicate the vehicle will not start due to the inability of the Engine/ Powertrain Control Module (ECM/PCM) and Vehicle Theft Deterrent (VTD) Control Module to communicate without the BCM providing the gateway function.

Power Mode Master

This vehicles BCM functions as the power mode master (PMM). The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determination the power mode that will be sent over the serial data circuits to the other modules that need this information, and so the PMM will activate relays and other direct outputs of the PMM as needed. Refer to *Power Mode Description and Operation on page 6-432* for a complete description of power mode functions.

Serial Data Gateway

The BCM in this vehicle functions as a gateway or translator. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus for communication between the various modules. The gateway will interact with each network according to that network's transmission protocol.

One example of this necessary communication is the communication between the Engine/Powertrain Control Module (ECM/PCM) which is high speed serial data and Vehicle Theft Deterrent (VTD) Control Module which is low speed serial data. If these modules can not exchange information, the vehicle will not start.

Communication between the BCM and a scan tool can be on the high speed GMLAN network or low speed GMLAN network. If one network is lost, the BCM can still communicate with the scan tool. A lost communication DTC typically is set in modules other than the module with a communication failure.

Body Control Module

The various body control module (BCM) input and output circuits are described in the corresponding functional areas indicated on the BCM electrical schematics. Some BCM functions with the subsystems may be as a gateway only or as an enable for the system. The BCM related systems/subsystems include, but are not limited to the following:

- Antilock brake system (ABS)—Refer to ABS Description and Operation.
- Cruise control system—Refer to Cruise Control Description and Operation.
- Exterior lighting—Refer to *Exterior Lighting Systems Description and Operation on page 2-25*.
- Horn system —Refer to *Horns System Description and Operation on page 2-9*.
- Instrument cluster indicator control—Refer to Instrument Cluster Description and Operation.
- Interior lighting—Refer to *Interior Lighting Systems Description and Operation on page 2-26*.
- Power door lock system —Refer to *Power Door Locks Description and Operation on page 2-43*.
- Rear window defogger system —Refer to *Rear Window Defogger Description and Operation on page 2-6*.
- Remote function actuation (RFA) control—Refer to Keyless Entry System Description and Operation.
- Retained accessory power (RAP)—Refer to *Retained Accessory Power Description and Operation on page 6-433*.
- Shift lock control system —Refer to Automatic Transmission Shift Lock Control Description and Operation.
- Starting system—Refer to *Starting System Description and Operation on page 4-17*.
- Supplemental inflatable restraint (SIR) system — Refer to Supplemental Inflatable Restraint System Description and Operation.
- Theft deterrent—Refer to Immobilizer Description and Operation.
- Wiper/Washer system functions—Refer to Wiper/ Washer System Description and Operation.

Data Link Communications Description and Operation

Circuit Description

The communication among control modules is performed primarily through the GMLAN high speed serial data circuit and the GMLAN low speed serial data circuits. The modules that need real time communication are attached to the high speed GMLAN network. The body control module (BCM) is the serial data gateway between the networks. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus. The Local Interconnect Network (LIN) is another serial data communication network used on this vehicle which is dedicated to the remote compass module (RCM) subsystem. Below are more detailed descriptions of the individual networks. The gateway will interact with each network according to that network's transmission protocol. Refer to *Body Control System Description and Operation on page 6-16* for more information about the gateway.

GMLAN High Speed Circuit Description

The data link connector (DLC) allows a scan tool to communicate with the high speed GMLAN serial data circuit. The serial data is transmitted on two twisted wires that allow speed up to 500 Kb/s. The twisted pair is terminated with two 120 ohms resistors. The resistors are used to reduce noise on the High Speed GMLAN bus during normal vehicle operation. The high speed GMLAN is a differential bus. The high speed GMLAN serial data (+) and high speed GMLAN serial data (−) are driven to opposite extremes from a rest or idle level.

The idle level, which is approximately 2.5 volts, is considered recessive transmitted data and is interpreted as a logic 1. Driving the lines to their extremes, adds one volt to the high speed GMLAN serial data (+) and subtracts one volt from the high speed GMLAN serial data (−) wire. This dominant state is interpreted as a logic 0. GMLAN network management supports selective start up and is based on virtual networks. A virtual network is a collection of signals started in response to a vehicle event. The starting of a virtual network signifies that a particular aspect of the vehicles functionality has been requested. A virtual network is supported by virtual devices, which represents a collection of signals owned by a single physical device. So, any physical device can have one or more virtual devices. The signal supervision is the process of determining whether an expected signal is being received or not. Failsofting is the ability to substitute a signal with a default value or a default algorithm, in the absence of a valid signal. Some messages are also interpreted as a heartbeat of a virtual device. If such a signal is lost, the application will set a no communication code against the respective virtual device. This code is displayed on the Tech 2 screen as a code against the physical device. Note: a loss of serial data DTC does not represent a failure of the module that the code is set in.

GMLAN Low Speed Circuit Description

The data link connector (DLC) allows a scan tool to communicate with the low speed GMLAN serial data circuit. The serial data is transmitted over a single wire to the appropriate control modules. The transmission speed for GMLAN low speed is up to 83.33 Kb/s. Under normal vehicle operating conditions, the speed of the bus is 33.33 Kb/s. This protocol produces a simple pulse train sent out over the GMLAN low speed serial data bus. When a module pulls the bus high, 5 volts, this creates a dominant logic state or 0 on the bus. When the bus is pulled low, 0 volts, it is translated as a recessive logic state or 1. To wake the control modules connected to the GMLAN low speed serial data bus, a high voltage wake up pulse is sent out over the bus, the voltage level of the pules is +10 volts. Modules connected to the GMLAN low speed bus can be part of a virtual network as described in the previous paragraph. Most modules on the GMLAN low speed serial data bus are connected to the bus in a parallel configuration. Refer to the schematics to determine modules that are not in parallel

Local Interconnect Network (LIN) Description

The remote compass module (RCM) communicates with the BCM utilizing a single wire LIN communication link. The BCM is the gateway for the GMLAN network. All data is communicated on the LIN bus, therefore there are only 3 circuits to the RCM as follows:

- Ground
- LIN bus
- Voltage

Data Link Connector (DLC)

The data link connector (DLC) is a standardized 16-cavity connector. Connector design and location is dictated by an industry wide standard, and provides the following:

- Pin 1 GMLAN low speed communications terminal
- Pin 4 Scan tool power ground terminal
- Pin 5 Common signal ground terminal
- Pin 6 High speed GMLAN serial data bus (+) terminal
- Pin 14 High speed GMLAN serial data bus (−) terminal
- Pin 16 Scan tool power, battery positive voltage terminal

Serial Data Reference

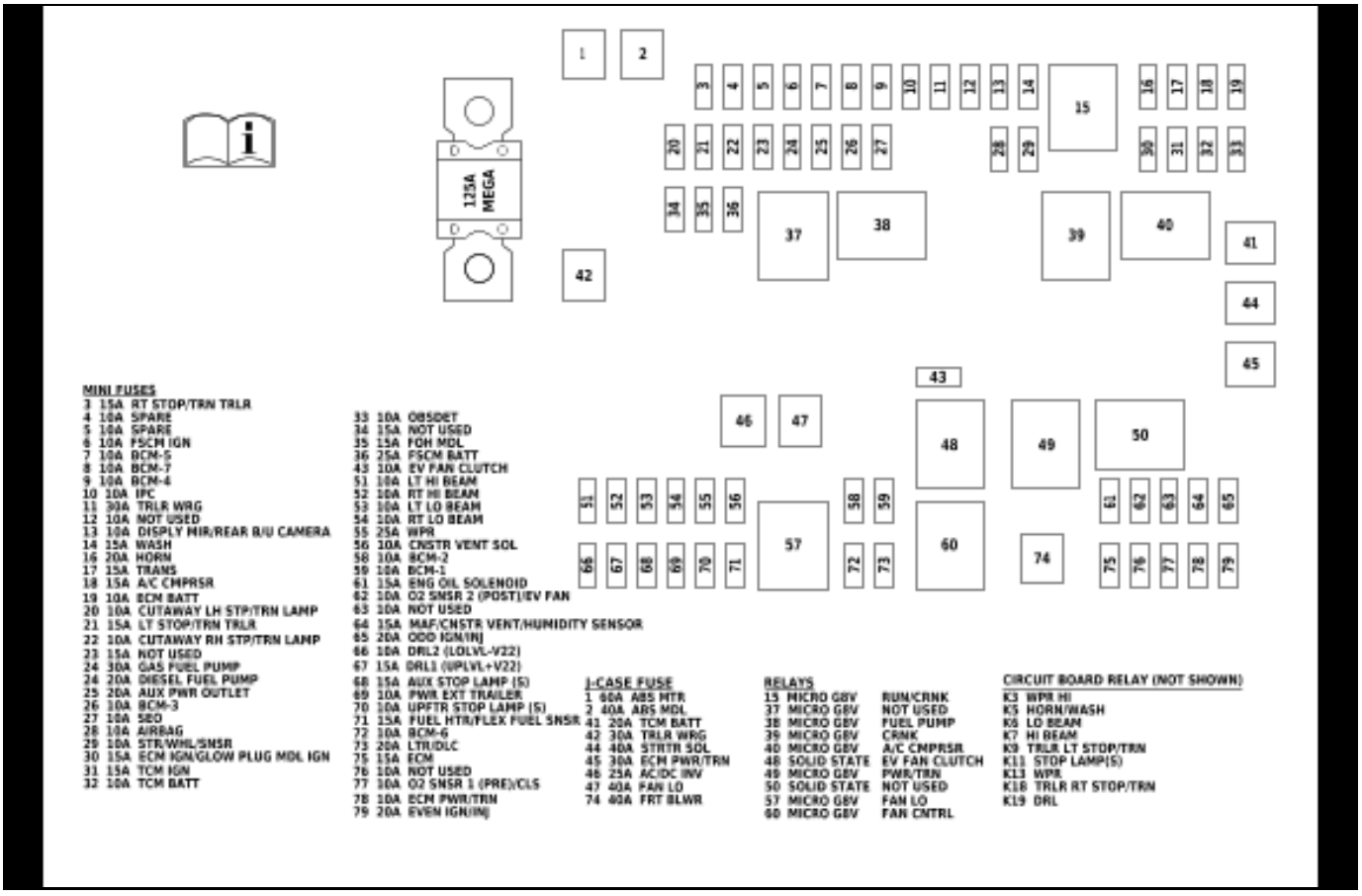
The scan tool communicates over the various busses on the vehicle. When a scan tool is installed on a vehicle, the scan tool will try to communicate with every module that could be optioned into the vehicle. If an option is not installed on the vehicle, the scan tool will display No Comm for that options specific control module. In order to avert misdiagnoses of No Communication with a specific module, refer to Data Link References for a list of modules, the bus they communicate with, and the RPO codes for a specific module.

Electrical Component and Inline Harness Connector End Views

Visual Identification

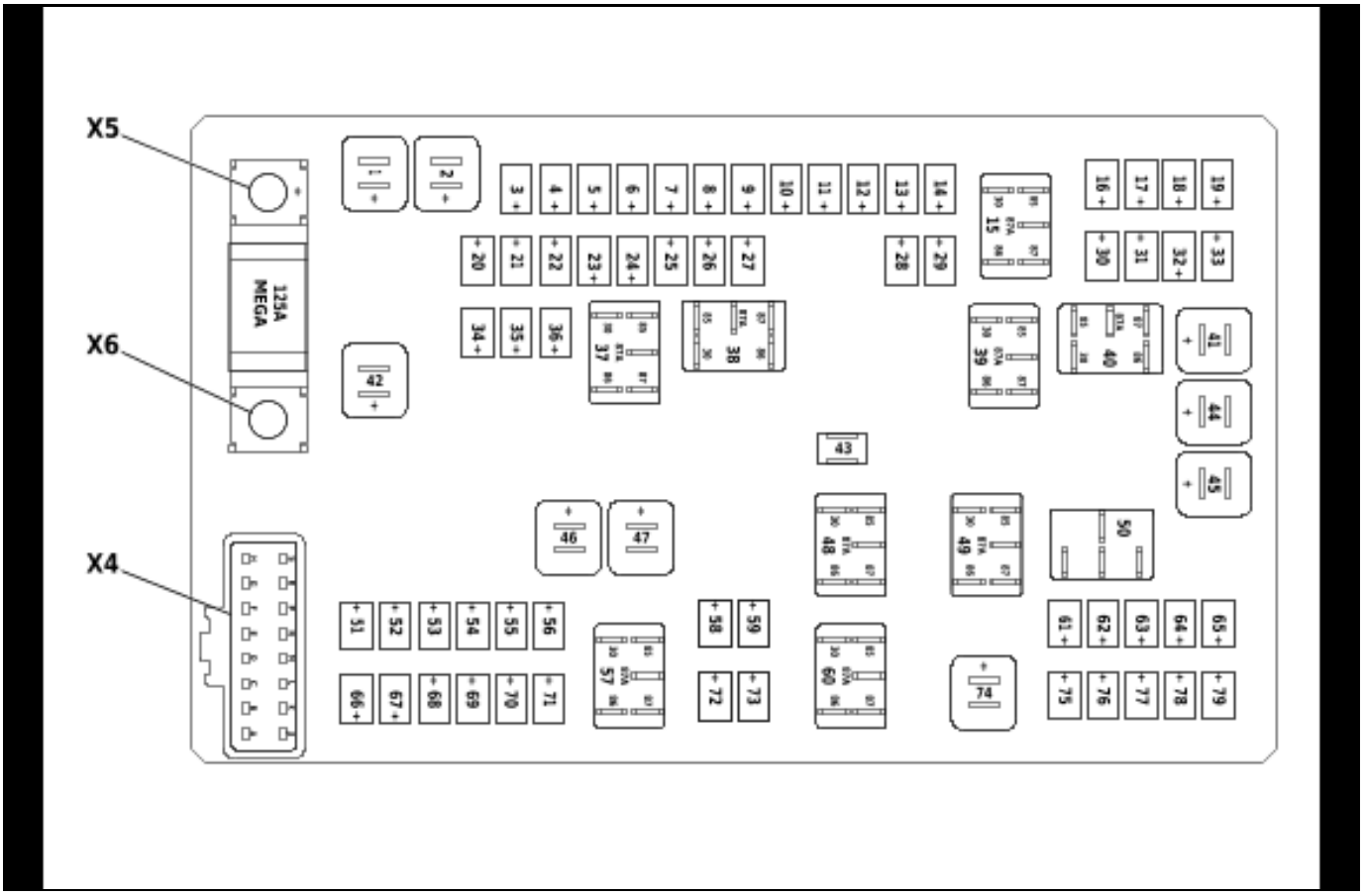
Electrical Center Identification Views

X50A Fuse Block - Underhood Label


MINI FUSES
1 15A RT STOP/TRN TRLR
2 10A SPARE
3 10A SPARE
4 10A FSCM IGN
5 10A BCM-5
6 10A BCM-7
7 10A BCM-4
8 10A IPC
9 30A TRLR WRG
10 10A NOT USED
11 10A DISPLY MIR/REAR R/U CAMERA
12 15A WASH
13 20A HORN
14 15A TRANS
15 15A A/C CMPRSR
16 10A BCM BATT
17 10A CUTAWAY LH STP/TRN LAMP
18 15A LT STOP/TRN TRLR
19 10A CUTAWAY RH STP/TRN LAMP
20 15A NOT USED
21 30A GAS FUEL PUMP
22 20A DIESEL FUEL PUMP
23 20A AUX PWR OUTLET
24 10A BCM-3
25 10A SEO
26 10A AIRBAG
27 10A STR/WHL/SNSR
28 15A ECM IGN/GLOW PLUG MDL IGN
29 15A TCM IGN
30 10A TCM BATT
33 10A OBSDET
34 15A NOT USED
35 15A FOH MDL
36 25A FSCM BATT
43 10A EV FAN CLUTCH
51 10A LT HI BEAM
52 10A RT HI BEAM
53 10A LT LO BEAM
54 10A RT LO BEAM
55 25A WPR
56 10A CNSTR VENT SOL
58 10A BCM-2
59 10A BCM-1
61 15A ENG OIL SOLENOID
62 10A O2 SNSR 2 (POST)/EV FAN
63 10A NOT USED
64 15A MAF/CNSTR VENT/HUMIDITY SENSOR
65 20A ODD IGN/INJ
66 10A DRL2 (LOLVL-V22)
67 15A DRL3 (UPLVL+V22)
68 15A AUX STOP LAMP (S)
69 10A PWR EXT TRAILER
70 10A UPFTR STOP LAMP (S)
71 15A FUEL HTR/FLEX FUEL SNSR
72 10A BCM-6
73 20A LTR/DLC
75 15A ECM
76 10A NOT USED
77 10A O2 SNSR 1 (PRE)/CLS
78 10A ECM PWR/TRN
79 20A EVEN IGN/INJ
J-CASE FUSE
1 60A ABS MTR
2 40A ABS MDL
41 20A TCM BATT
42 30A TRLR WRG
44 40A STRTR SOL
45 30A ECM PWR/TRN
46 25A AC/DC INV
47 40A FAN LO
74 40A FRT BLWR
RELAYS
15 MICRO G8V RUN/CRNK
37 MICRO G8V NOT USED
38 MICRO G8V FUEL PUMP
39 MICRO G8V CRNK
40 MICRO G8V A/C CMPRSR
48 SOLID STATE EV FAN CLUTCH
49 MICRO G8V PWR/TRN
50 SOLID STATE NOT USED
57 MICRO G8V FAN LO
60 MICRO G8V FAN CNTRL
CIRCUIT BOARD RELAY (NOT SHOWN)
K3 WPR HI
K5 HORN/WASH
K6 LO BEAM
K7 HI BEAM
K9 TRLR LT STOP/TRN
K11 STOP LAMP(S)
K13 WPR
K18 TRLR RT STOP/TRN
K19 DRL
125A MEGA

5164870

X50A Fuse Block - Underhood Top View



4846863

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Mega Fuses				
MEGA	—	MEGA	125A	• X52A Fuse Block - Passenger Compartment
Mini Fuses				
3	RT STOP/ TRN TRLR	F3UA	15A	• X88 Trailer Connector
4	SPARE	F4UA	10A	• Not Used
5	SPARE	F5UA	10A	• Not Used
6	FSCM IGN	F6UA	10A	• E11A Fuel Heater/Water in Fuel Sensor (LWN) • K38 Chassis Control Module (LV1/L8T)
7	BCM-5	F7UA	10A	• K9 Body Control Module
8	BCM-7	F8UA	10A	• K9 Body Control Module
9	BCM-4	F9UA	10A	• K9 Body Control Module
10	IPC	F10UA	10A	• P16 Instrument Cluster
11	TRLR WRG	F11UA	30A	• W8 Blunt Cut - Trailer Provision (UY7)
12	NOT USED	F12UA	10A	• Not Used
13	DISPLY MIR/ REAR B/U CAMERA	F13UA	10A	• A10 Inside Rearview Mirror (UVC) • B87 Rearview Camera (UVC)
14	WASH	F14UA	15A	• G24 Windshield Washer Pump

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
16	HORN	F16UA	20A	• P13 Horn Assembly
17	TRANS	F17UA	15A	• Not Used
18	A/C CMPRSR	F18UA	15A	• Q2 A/C Compressor Clutch (C60)
19	ECM BATT	F19UA	10A	• K20 Engine Control Module
20	CUTAWAY LH STP/TRN LAMP	F20UA	10A	• X405
21	LT STOP/ TRN TRLR	F21UA	15A	• X88 Trailer Connector
22	CUTAWAY RH STP/TRN LAMP	F22UA	10A	• X405
23	NOX SENSOR	F23UA	15A	• B136 Exhaust Particulate Matter Sensor (LWN) • B195A Nitrogen Oxides Sensor 1 (LWN) • B195B Nitrogen Oxides Sensor 2 (LWN)
24	DIESEL FUEL PUMP	F24UA	20A	• A7 Fuel Pump and Level Sensor Assembly (LWN)
25	AUX PWR OUTLET	F25UA	20A	• X80B Accessory Power Receptacle - Center Console 2
26	BCM-3	F26UA	10A	• K9 Body Control Module
27	SEO	F27UA	10A	• Not Used
28	AIRBAG	F28UA	10A	• K36 Inflatable Restraint Sensing and Diagnostic Module • S40 Passenger Air Bag Disable Switch (C99)
29	STR/WHL/SNSR	F29UA	10A	• Not Used
30	ECM IGN/GLOW PLUG MDL IGN	F30UA	15A	• K20 Engine Control Module
31	TCM IGN	F31UA	15A	• K71 Transmission Control Module (M5U/MQD) • T12 Automatic Transmission Assembly (MYD)
32	TCM BATT	F32UA	10A	• T12 Automatic Transmission Assembly (MYD)
33	OBSDET	F33UA	10A	• B218L Side Object Sensor Module - Left (UFT) • B218R Side Object Sensor Module - Right (UFT) • K182 Parking Assist Control Module (UD7)
34	NOX SENSOR	F34UA	15A	• K115 Reductant Control Module (LWN) • KR121B Reductant Control Module Relay 2 (LWN)
35	FOH MDL	F35UA	15A	• E19 Coolant Heater (K08)
36	FSCM BATT	F36UA	25A	• K38 Chassis Control Module (LV1/L8T)
43	EV FAN CLUTCH	F43UA	10A	• KR20F Cooling Fan Relay (LWN)
51	LT HI BEAM	F51UA	10A	• E4E Headlamp - Left High Beam
52	RT HI BEAM	F52UA	10A	• E4F Headlamp - Right High Beam
53	LT LO BEAM	F53UA	10A	• E4G Headlamp - Left Low Beam
54	RT LO BEAM	F54UA	10A	• E4H Headlamp - Right Low Beam
55	WPR	F55UA	25A	• KR12B Windshield Wiper Relay
56	CNSTR VENT SOL	F56UA	10A	• Q13 Evaporative Emission Vent Solenoid Valve (LV1/L8T)
58	BCM-2	F58UA	10A	• K9 Body Control Module
59	BCM-1	F59UA	10A	• K9 Body Control Module
61	CCV HTR/ENG OIL SOL	F61UA	15A	• E45 Positive Crankcase Ventilation Heater (LWN) • Q44 Engine Oil Pressure Control Solenoid Valve (L8T)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
62	O2 SNSR 2 (POST)/EV FAN	F62UA	10A	• B52D Heated Oxygen Sensor - Bank 1 Sensor 2 (LV1/L8T) • B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (LV1/L8T)
63	NOT USED	F63UA	10A	• Not Used
64	MAF/CNSTR VENT/HUMIDITY SENSOR	F64UA	15A	• B75C Multifunction Intake Air Sensor • Q12 Evaporative Emission Purge Solenoid Valve (LV1/L8T)
65	ODD IGN/INJ	F65UA	20A	• K20 Engine Control Module (LV1/L8T) • T8A Ignition Coil 1 (LV1/L8T) • T8C Ignition Coil 3 (LV1/L8T) • T8E Ignition Coil 5 (LV1/L8T) • T8G Ignition Coil 7 (L8T)
66	DRL2 (LOLVL-V22)	F66UA	10A	• Not Used
67	DRL1 (UPLVL+V22)	F67UA	15A	• E4G Headlamp - Left Low Beam
68	AUX STOP LAMP(S)	F68UA	15A	• X405 (Cutaway)
69	PWR EXT TRAILER	F69UA	10A	• W8 Blunt Cut - Trailer Provision (UY7)
70	UPFTR STOP LAMP(S)	F70UA	10A	• W25 Blunt Cut - Configurable Provision
71	FUEL HTR/FLEX FUEL SNSR	F71UA	15A	• Not Used
72	BCM-6	F72UA	10A	• K9 Body Control Module
73	LTR/DLC	F73UA	20A	• X80A Accessory Power Receptacle - Center Console 1 • X84 Data Link Connector
75	ECM	F75UA	15A	• K20 Engine Control Module
76	NOT USED	F76UA	10A	• Not Used
77	O2 SNSR 1 (PRE)/CLS	F77UA	10A	• B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (LV1/L8T) • B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (LV1/L8T) • K20 Engine Control Module (LWN)
78	ECM PWR/TRN	F78UA	10A	• Not Used
79	EVEN IGN/INJ	F79UA	20A	• K20 Engine Control Module (LV1/L8T) • T8B Ignition Coil 2 (LV1/L8T) • T8D Ignition Coil 4 (LV1/L8T) • T8F Ignition Coil 6 (LV1/L8T) • T8H Ignition Coil 8 (L8T)
J-Case Fuses				
1	ABS MTR	F1UA	60A	• K17 Electronic Brake Control Module
2	ABS MDL	F2UA	40A	• K17 Electronic Brake Control Module
41	TCM BATT	F41UA	20A	• K71 Transmission Control Module (M5U/MQD)
42	TRLR WRG	F42UA	30A	• X88 Trailer Connector (UY7)
44	STRTR SOL	F44UA	40A	• M64 Starter Motor
45	ECM PWR/TRN	F45UA	30A	• K20 Engine Control Module
46	SPARE	F46UA	30A	• Not Used (Without KI4)

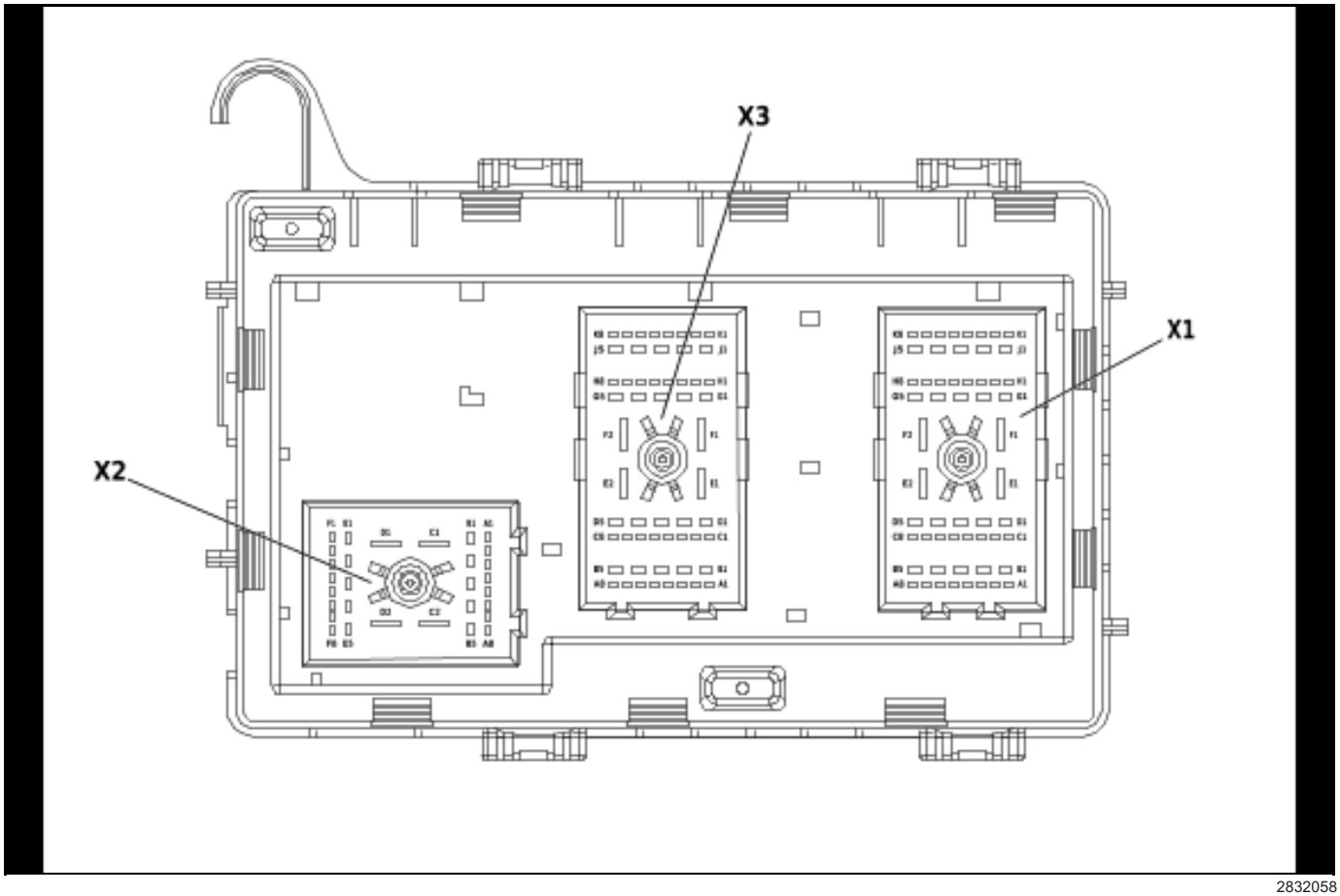
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
46	AC/DC INV	F46UA	25A	• T1 Accessory DC/AC Power Iverter Module (KI4)
47	FAN LO	F47UA	40A	• Not Used
74	FRT BLWR	F74UA	40A	• R3 Blower Motor Resistor
Relays				
15	RUN/CRNK	KR93 Ignition Run/ Crank Relay	—	• F6UA • F10UA • F12UA • F13UA • F17UA • F28UA • F29UA • F30UA • F31UA
37	NOX SENSOR	KR121B Reductant Control Module Relay 2	—	• F23UA
38	FUEL PUMP	KR23A Fuel Pump Relay	—	• F24UA
39	CRNK	KR27 Starter Relay	—	• F44UA
40	A/C CMPRSR	KR29 A/C Compressor Clutch Relay	—	• F18UA
48	EV FAN CLUTCH	KR20F Cooling Fan Relay	—	• Q85 Cooling Fan Clutch (LWN)
49	PWR/TRN	KR75 Engine Controls Ignition Relay	—	• F45UA • F61UA • F62UA • F63UA • F64UA • F65UA • F71UA • F75UA • F76UA • F77UA • F78UA • F79UA
50	NOT USED	KR150 Relay - Spare	—	• Not Used
57	FAN LO	KR20C Cooling Fan Low Speed Relay	—	• Not Used
60	FAN CNTRL	KR20E Cooling Fan Speed Control Relay	—	• Not Used
Important: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
K3	WPR HI	KR12C Windshield Wiper Speed Control Relay	—	• M75 Windshield Wiper Motor
K5	HORN/WASH	KR3 Horn Relay, KR11 Windshield Washer Pump Relay	—	• F14UA • F16UA
K6	LO BEAM	KR49 Headlamp Low Beam Relay	—	• F53UA • F54UA

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
K7	HI BEAM	KR48 Headlamp High Beam Relay	—	• F51UA • F52UA
K9	TRLR LT STOP/TRN	KR63L Trailer Stop/Turn Signal Lamp Relay - Left	—	• F5UA • F20UA • F21UA
K11	STOP LAMP(S)	KR59 Stop Lamp Relay	—	• F68UA • F69UA • F70UA
K13	WPR	KR12B Windshield Wiper Relay	—	• KR12C Windshield Wiper Speed Control Relay
K18	TRLR RT STOP/TRN	KR63R Trailer Stop/Turn Signal Lamp Relay - Right	—	• F3UA • F4UA • F22UA
K19	DRL	KR42 Daytime Running Lamps Relay	—	• F66UA • F67UA

X50A Fuse Block - Underhood Bottom View



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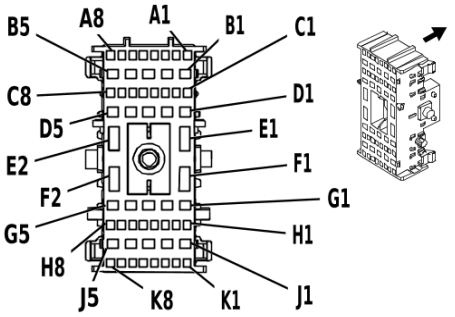
X50A Fuse Block - Underhood X1



2083844

Connector Part Information

Harness Type: Engine
OEM Connector: 15477823
Service Connector: 13574911
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	19367554	J-35616-44 (YE)	J-38125-558

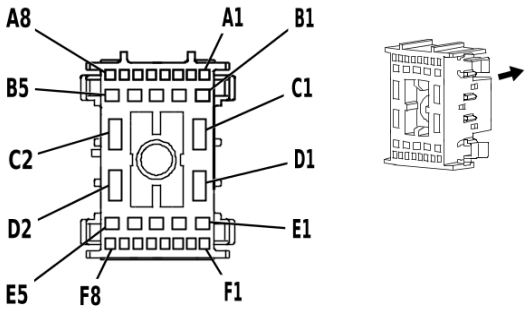
X50A Fuse Block - Underhood X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	RD/WH	140	Secondary Fused Battery Positive Voltage 1	I	—
	0.5	RD/BN	440	Secondary Fused Battery Positive Voltage 4	I	—
A2	0.5	RD/L-GN	1840	Secondary Fused Battery Positive Voltage 18	I	—
A3 - A8	—	—	—	Not Occupied	—	—
B1	0.5	RD/BU	840	Secondary Fused Battery Positive Voltage 8	II	—
B2	0.5	BN/L-GN	59	A/C Compressor Clutch Control	II	—
B3	—	—	—	Not Occupied	—	—
B4	1	BN/GY	29	Horn Control	II	—
B5	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage 4	II	—
C1	—	—	—	Not Occupied	—	—
C2	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	I	—
C3 - C5	—	—	—	Not Occupied	—	—
C6	0.5	YE/BK	625	Starter Enable Relay Control	I	—
C7	1	BK	1250	Ground 12	I	—
C8	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	I	—
D1	0.75	RD/L-GN	1840	Secondary Fused Battery Positive Voltage 18	II	—
D2	—	—	—	Not Occupied	—	—
D3	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage 21	II	—
D4	0.75	BK	550	Ground 5	II	—
D5	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
E1	4	YE	6	Starter Solenoid Actuator Crank Ignition Voltage	III	—
	5	PU	6	Starter Solenoid Actuator Crank Ignition Voltage	III	—
E2	—	—	—	Not Occupied	—	—
F1	2.5	VT/GY	1439	Run/Crank Ignition 1 Voltage 14	III	—
	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	III	—
F2	5	RD/BK	542	Primary Fused Battery Positive Voltage 5	III	—
	5	RD/PU	542	Primary Fused Battery Positive Voltage 5	III	—
G1	0.75	VT/GY	1039	Run/Crank Ignition 1 Voltage 10	II	—
G2	1	VT/GY	1039	Run/Crank Ignition 1 Voltage 10	II	—
	1	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
G3	—	—	—	Not Occupied	—	—
G4	0.75	VT/WH	1939	Run/Crank Ignition 1 Voltage 19	II	—
	0.75	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	—
G5	0.5	VT/WH	1939	Run/Crank Ignition 1 Voltage 19	II	—
H1 - H4	—	—	—	Not Occupied	—	—
H5	0.5	WH/BK	2366	Cooling Fan Speed Control Signal	I	—
H6	0.5	WH	2368	Cooling Fan Control	I	—
H7 - H8	—	—	—	Not Occupied	—	—
J1	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage 12	II	—
J2	1	VT/BK	1239	Run/Crank Ignition 1 Voltage 12	II	—
	1	VT/BU	5292	Powertrain Main Relay Fused Supply 3	II	—
J3	—	—	—	Not Occupied	—	—
J4	0.5	VT/BU	5292	Powertrain Main Relay Fused Supply 3	II	—
	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
J5	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	II	—
K1	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
K2 - K3	—	—	—	Not Occupied	—	—
K4	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
K5 - K7	—	—	—	Not Occupied	—	—
K8	0.5	YE	5991	Powertrain Relay Coil Control	I	—

X50A Fuse Block - Underhood X2



1665657

Connector Part Information

Harness Type: Chassis
OEM Connector: 13567518
Service Connector: 19180280
Description: 30-Way F 150, 280 GT Metri-Pack 800 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575790	J-35616-2A (GY)	J-38125-215A
II	19303704	J-35616-35 (VT)	J-38125-215A
III	19303704	J-35616-4A (PU)	J-38125-215A
IV	19303708	J-35616-35 (VT)	J-38125-215A
V	19366953	J-35616-44 (YE)	J-38125-558
VI	19367554	J-35616-44 (YE)	J-38125-558

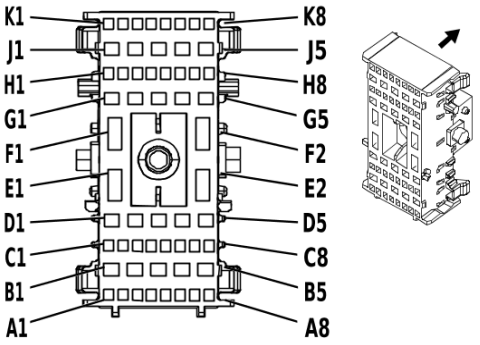
X50A Fuse Block - Underhood X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	—	—	—	Not Occupied	—	—
A2	1	YE	618	Left Rear Turn Signal Lamp Control	I	—
A3	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
A4	1	D-GN	619	Right Rear Turn Signal Lamp Control	I	—
A5	—	—	—	Not Occupied	—	—
A6	0.5	RD/WH	4042	Primary Fused Battery Positive Voltage 40	I	—
	0.5	RD/BK	4042	Primary Fused Battery Positive Voltage 40	I	—
A7	1	BN	2109	Trailer Park Lamp Control	I	—
A8	0.5	VT	2739	Run/Crank Ignition 1 Voltage 27	I	—
	0.75	VT/GY	2739	Run/Crank Ignition 1 Voltage 27	I	—
B1	2.5	GY	120	Fuel Pump Control	IV	—
B2	—	—	—	Not Occupied	—	—
B3	1	GY	3672	NOx Sensor 2 Control	II	—
B4	2	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	IV	—
B5	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	III	—
	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
C1	—	—	—	Not Occupied	—	—
C2	2.5	RD/VT	1640	Secondary Fused Battery Positive Voltage 16	VI	—
D1	3	RD/BK	742	Primary Fused Battery Positive Voltage 7	V	—
D2	5	RD/YE	442	Primary Fused Battery Positive Voltage 4	VI	—
E1	—	—	—	Not Occupied	—	—
E2	0.8	L-BU	1320	Center High Mounted Stop Lamp Control 2	III	—
E3	3	D-BU	47	Trailer Auxiliary Control	IV	—
E4	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	III	—
E5	2.5	RD/VT	1940	Secondary Fused Battery Positive Voltage 19	IV	—
F1	1	L-GN	1624	Trailer Backup Lamp Control	I	—
F2	0.5	RD/L-GN	40	Secondary Fused Battery Positive Voltage	I	—
F3	1	BN	2109	Trailer Park Lamp Control	I	—
F4	0.5	L-GN/BU	3889	Powertrain Sensor Bus Relay Control	I	—
F5	0.5	RD/L-GN	2440	Secondary Fused Battery Positive Voltage 24	I	—

X50A Fuse Block - Underhood X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
F6	0.5	RD/WH	4042	Primary Fused Battery Positive Voltage 40	I	—
	0.5	RD/BK	4042	Primary Fused Battery Positive Voltage 40	I	—
F7	1	D-GN	619	Right Rear Turn Signal Lamp Control	I	—
F8	1	YE	618	Left Rear Turn Signal Lamp Control	I	—

X50A Fuse Block - Underhood X3



1581655

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15477822
Service Connector: 19115189
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	13575754	J-35616-4A (PU)	J-38125-215A
IV	13575756	J-35616-4A (PU)	J-38125-215A
V	19366953	J-35616-44 (YE)	J-38125-558

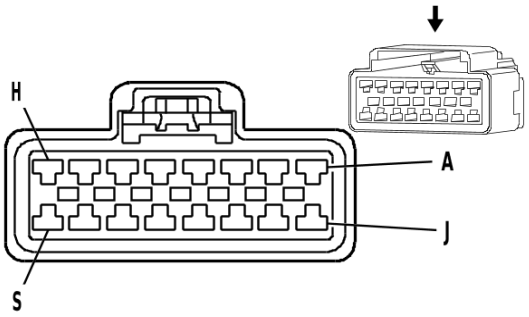
X50A Fuse Block - Underhood X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	PK	1639	Run/Crank Ignition 1 Voltage 16	I	—
A2	0.35	RD/WH	2840	Secondary Fused Battery Positive Voltage 28	I	—
A3	0.8	RD/WH	2240	Secondary Fused Battery Positive Voltage 22	I	—
A4	0.8	RD/WH	3040	Secondary Fused Battery Positive Voltage 30	I	—
A5	0.5	RD/WH	2540	Secondary Fused Battery Positive Voltage 25	I	—
A6	—	—	—	Not Occupied	—	—
A7	0.8	RD/WH	2740	Secondary Fused Battery Positive Voltage 27	I	—
A8	—	—	—	Not Occupied	—	—
B1	3	RD/WH	3940	Secondary Fused Battery Positive Voltage 39	IV	—

X50A Fuse Block - Underhood X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
B2	0.35	PK	1139	Run/Crank Ignition 1 Voltage 11	II	—
B3	0.35	PK	1139	Run/Crank Ignition 1 Voltage 11	II	—
B4	1	RD/WH	1040	Secondary Fused Battery Positive Voltage 10	II	—
B5	1	BN	2109	Trailer Park Lamp Control	II	—
C1	0.5	PK	239	Run/Crank Ignition 1 Voltage 2	I	—
C2 - C3	—	—	—	Not Occupied	—	—
C4	0.35	OG	5186	Left Trailer Turn Signal Lamp Control	I	—
C5	1	BN	2109	Trailer Park Lamp Control	I	—
C6	1	D-GN	619	Right Rear Turn Signal Lamp Control	I	—
C7	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
C8	1	YE	618	Left Rear Turn Signal Lamp Control	I	—
D1	0.5	OG	228	Windshield Washer Pump Control	II	—
D2	0.35	YE	5199	Run/Crank Relay Coil Control	II	—
D3	1	L-GN	1624	Trailer Backup Lamp Control	II	—
D4	3	D-BU	47	Trailer Auxiliary Control	IV	—
D5 - E1	—	—	—	Not Occupied	—	—
E2	3	RD/WH	4140	Secondary Fused Battery Positive Voltage 41	V	—
F1 - F2	—	—	—	Not Occupied	—	—
G1	0.8	RD/WH	640	Secondary Fused Battery Positive Voltage 6	II	—
G2	0.35	OG	2268	Windshield Washer Relay Control	II	—
G3	0.35	YE	5187	Right Trailer Turn Signal Lamp Control	II	—
G4	2	PU	92	Windshield Wiper Motor High Speed Control	III	—
G5	2	D-GN	95	Windshield Wiper Motor Low Speed Control	III	—
H1	—	—	—	Not Occupied	—	—
H2	1	RD/WH	3840	Secondary Fused Battery Positive Voltage 38	I	—
H3	0.35	TN	28	Horn Relay Control	I	—
H4	0.35	PK/WH	1970	Headlamp Low Beam Relay Control 3	I	—
H5	0.35	PU	544	DRL Relay Control	I	—
H6	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	I	—
H7	0.5	WH	5065	Stop Lamp Relay Coil Control	I	—
H8	0.35	TN	860	Windshield Wiper Switch High Signal	I	—
J1	1	RD/WH	640	Secondary Fused Battery Positive Voltage 6	II	—
J2	0.8	RD/WH	2940	Secondary Fused Battery Positive Voltage 29	II	—
J3	0.8	BN	2309	Front Park Lamp Control	II	—
J4	0.8	D-BU/WH	1315	Right Front Turn Signal Lamp Control	II	—
J5 - K2	—	—	—	Not Occupied	—	—
K3	0.8	RD/WH	2140	Secondary Fused Battery Positive Voltage 21	I	—
K4	0.5	L-BU	20	Stop Lamp Control	I	—
K5	0.5	L-BU/WH	6311	Cruise/ETC/TCC Brake Signal	I	—
K6	—	—	—	Not Occupied	—	—
K7	0.8	L-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
K8	0.35	TN/WH	1969	Headlamp High Beam Relay Control	I	—

X50A Fuse Block - Underhood X4



823321

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15326952
Service Connector: 15306426
Description: 16-Way F 280 GT Series (BK)

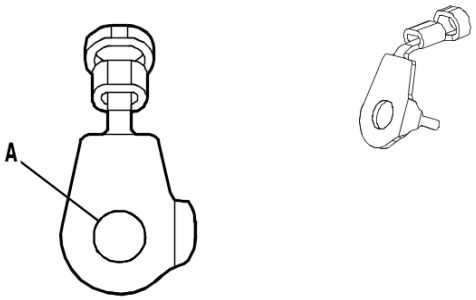
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575753	J-35616-4A (PU)	J-38125-215A

X50A Fuse Block - Underhood X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	—	Not Occupied	—	—
B	0.5	BN	2309	Front Park Lamp Control	I	—
	0.5	GY/BN	2309	Front Park Lamp Control	I	—
C	0.5	GY/BN	2309	Front Park Lamp Control	I	—
	0.5	BN	2309	Front Park Lamp Control	I	—
D	0.75	L-GN/VT	1315	Right Front Turn Signal Lamp Control	I	—
	0.8	D-BU/WH	1315	Right Front Turn Signal Lamp Control	I	—
E	0.75	D-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
	0.8	L-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
F	0.5	YE	712	Left Headlamp Low Beam Control	I	—
	0.8	YE	712	Left Headlamp Low Beam Control	I	—
G - J	—	—	—	Not Occupied	—	—
K	0.5	YE	712	Left Headlamp Low Beam Control	I	—
L	—	—	—	Not Occupied	—	—
M	0.75	WH	311	Right Headlamp High Beam Control	I	—
	0.8	L-GN/BK	311	Right Headlamp High Beam Control	I	—
N	0.5	D-GN/WH	711	Left Headlamp High Beam Control	I	—
	0.75	WH	711	Left Headlamp High Beam Control	I	—
P	0.75	YE	312	Right Headlamp Low Beam Control	I	—
	0.8	TN/WH	312	Right Headlamp Low Beam Control	I	—
R - S	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X5



4831180

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12160208
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

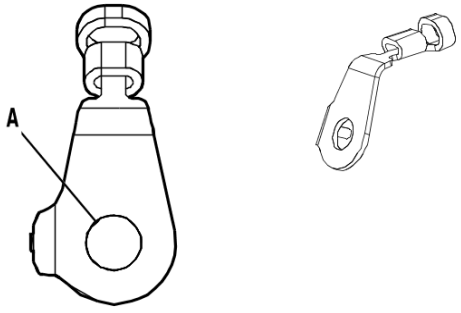
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

X50A Fuse Block - Underhood X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	1	Unfused Battery Positive Voltage	I	—

X50A Fuse Block - Underhood X6



4831192

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13595106
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

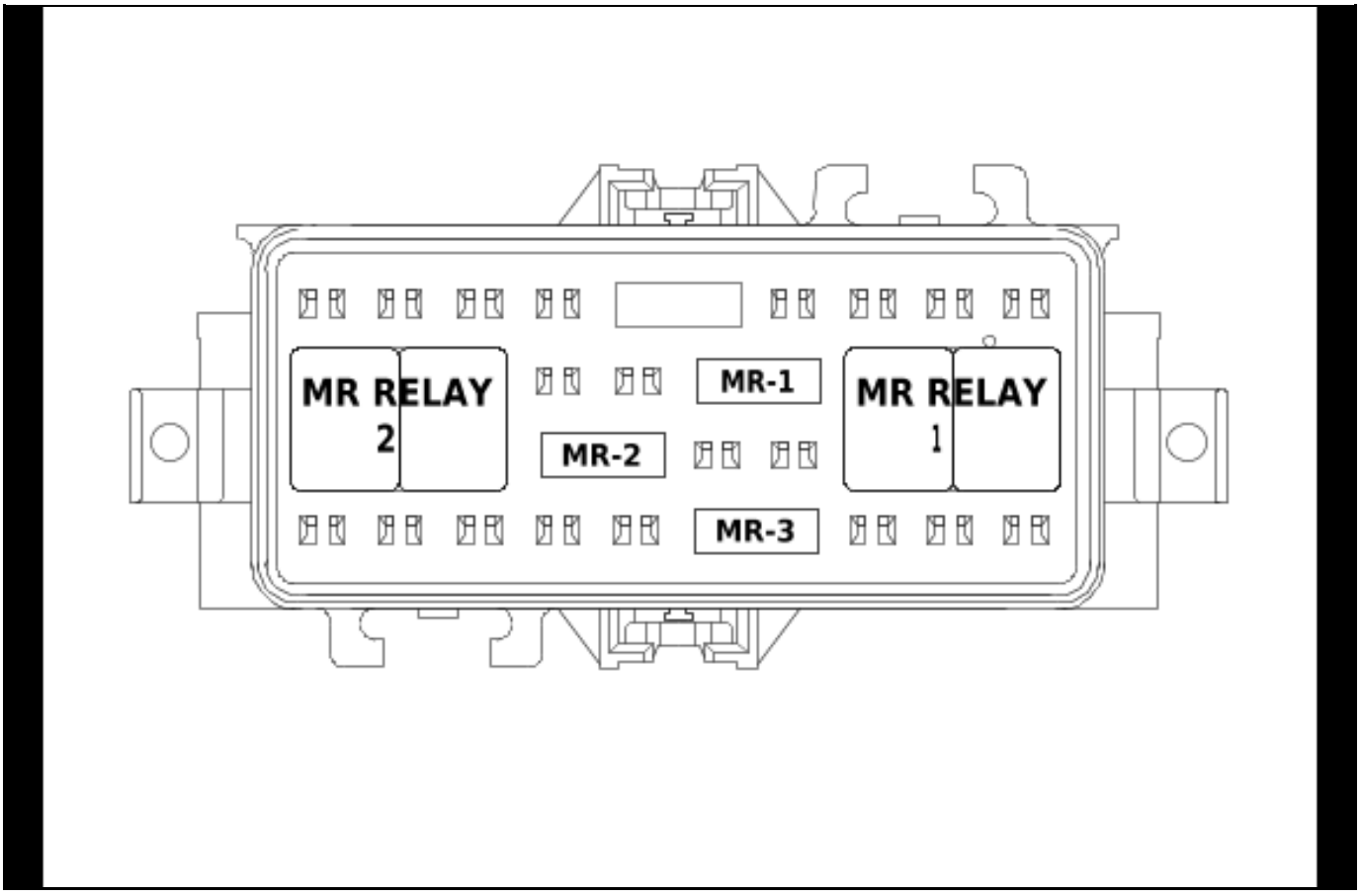
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

X50A Fuse Block - Underhood X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	842	Primary Fused Battery Positive Voltage 8	I	—

X50B Fuse Block - Underhood Auxiliary Top View



4845612

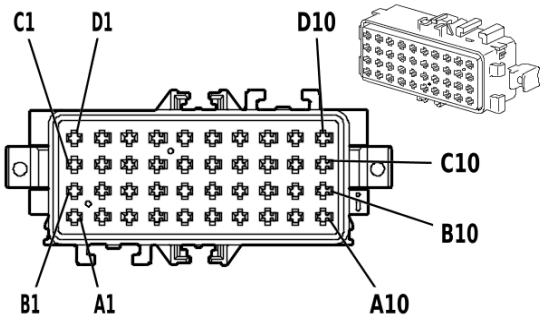
Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	MR-2	F1UB	30A	• KR161A Configurable Provision Relay 1 (9L7)
F2	MR-1	F2UB	30A	• KR161B Configurable Provision Relay 2 (9L7)
F3	MR-3	F3UB	10A	• W25 Blunt Cut - Configurable Provision (9L7)
Relays				
R1	MR RELAY 1	KR90 Door Unlock Relay (WRF), KR161B Configurable Provision Relay 2 (9L7)	—	• W25 Blunt Cut - Configurable Provision

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
R2	MR RELAY 2	KR97 Door Lock Relay (WRF), KR161A Configurable Provision Relay 1 (9L7)	—	• W25 Blunt Cut - Configurable Provision

X50B Fuse Block - Underhood Auxiliary



2002692

Connector Part Information

Harness Type: Accessory
OEM Connector: 13607200
Service Connector: Service by Harness - See Part Catalog
Description: 40-Way F 2.8 MCP Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

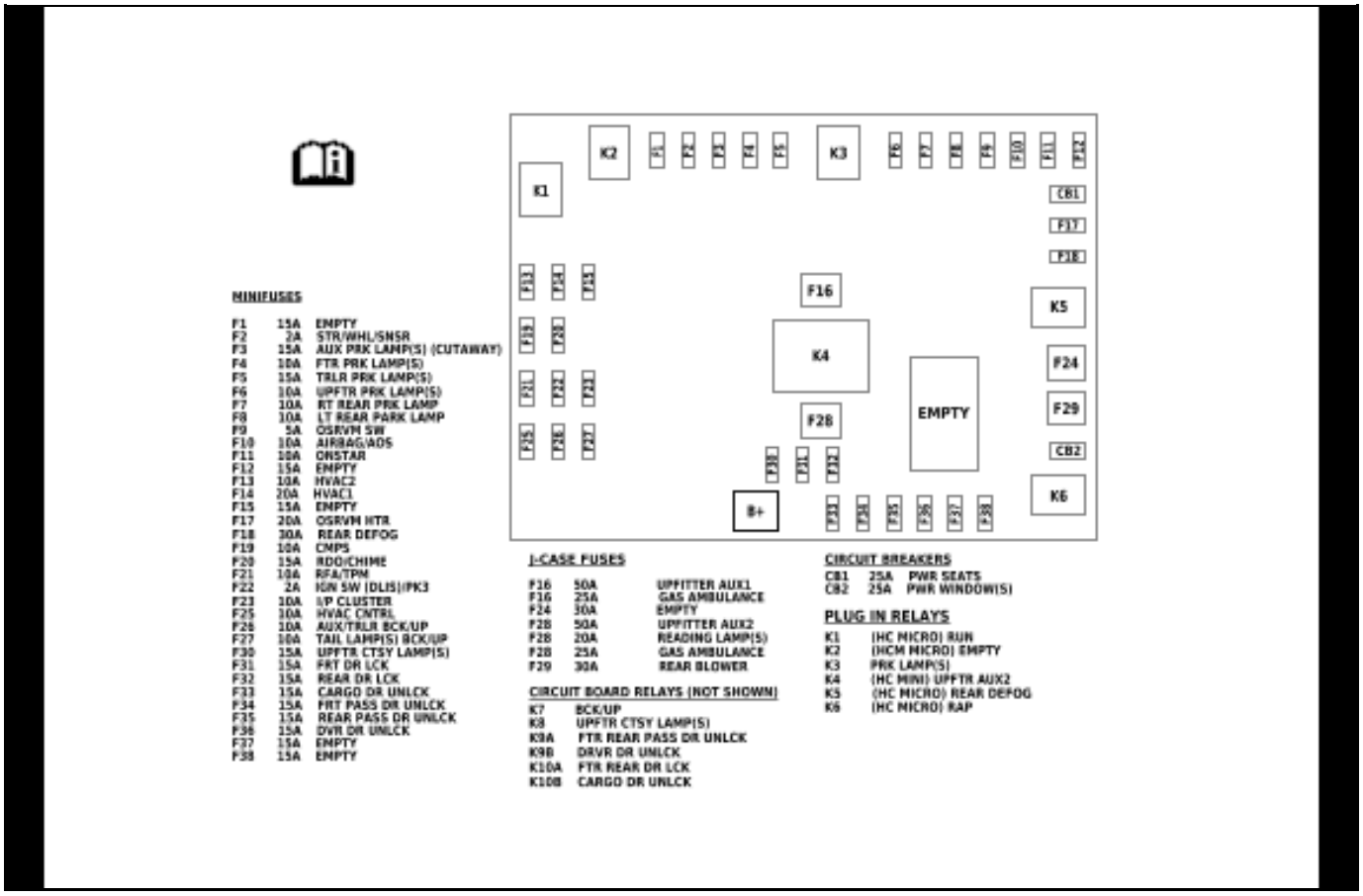
X50B Fuse Block - Underhood Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A5	—	—	—	Not Occupied	—	—
A6	1	RD/BK	102	Battery Positive Voltage 1	I	—
A7	1	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
A8 - A10	—	—	—	Not Occupied	—	—
B1	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
B2	—	—	—	Not Occupied	—	—
B3	0.5	D-BU	6843	Auxiliary Device Relay 2 Control	I	—
B4	2.5	RD/BK	102	Battery Positive Voltage 1	I	—
B5	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
B6 - B7	—	—	—	Not Occupied	—	—
B8	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
B9	—	—	—	Not Occupied	—	—
B10	0.5	L-BU	6842	Auxiliary Device Relay 1 Control	I	—

X50B Fuse Block - Underhood Auxiliary (cont'd)

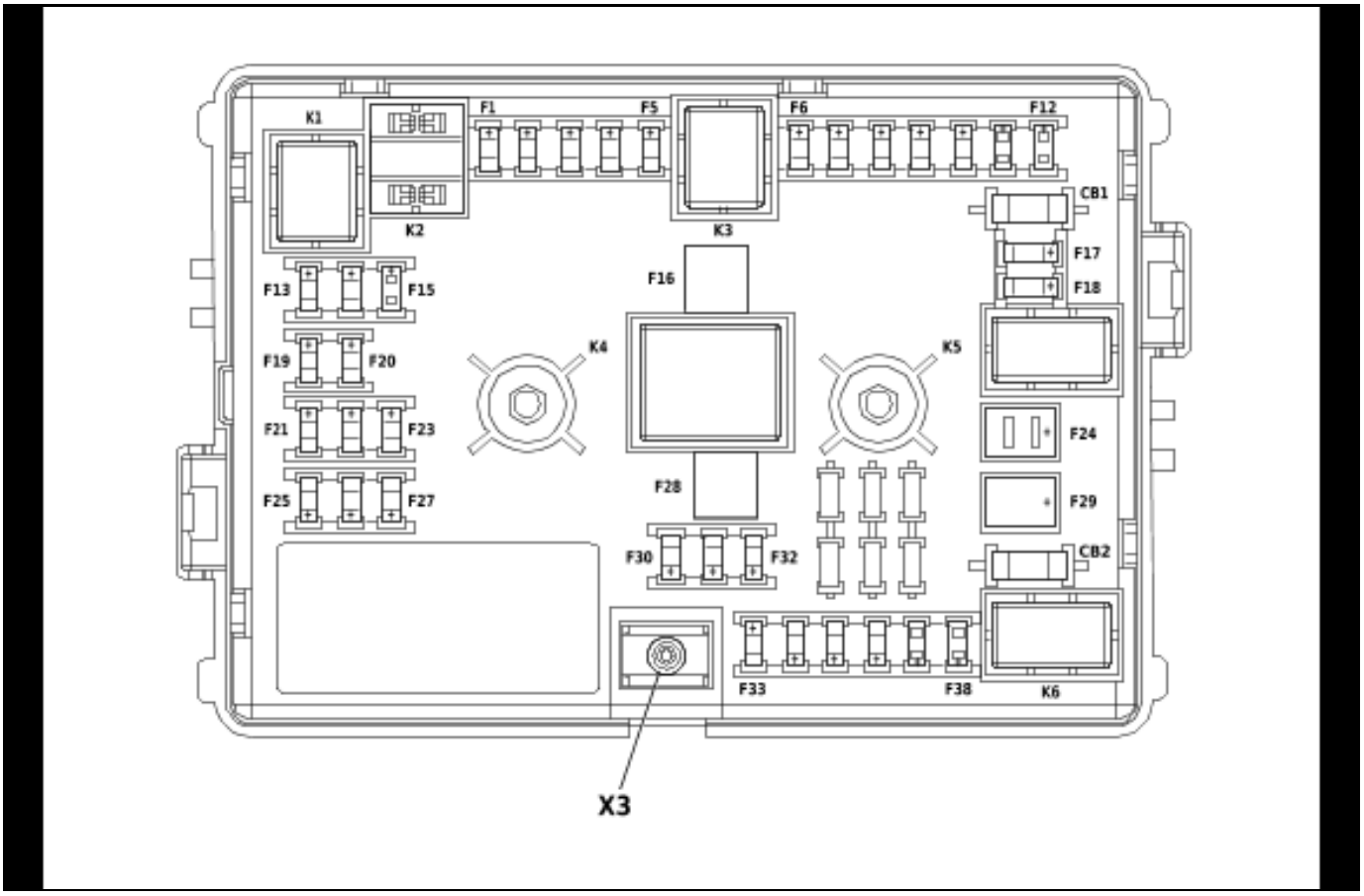
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
C1	0.5	BK	1850	Ground 18	I	—
C2	—	—	—	Not Occupied	—	—
C3	2.5	L-GN	6840	Auxiliary Device 2 Switched Voltage	I	—
C4 - C5	—	—	—	Not Occupied	—	—
C6	2.5	RD/BK	102	Battery Positive Voltage 1	I	—
C7	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
C8	0.5	BK	1551	Ground 15	I	—
C9	—	—	—	Not Occupied	—	—
C10	2.5	L-GN	6839	Auxiliary Device 1 Switched Voltage	I	—
D1 - D10	—	—	—	Not Occupied	—	—

X52A Fuse Block - Passenger Compartment Label



4822912

X52A Fuse Block - Passenger Compartment Top View



3988743

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Mini Fuses				
F1	EMPTY	F1PA	15A	• Not Used
F2	STR/WHL/SNSR	F2PA	2A	• S70L Steering Wheel Controls Switch - Left (K34 or W1Y) • S70R Steering Wheel Controls Switch - Right (W1Y)
F3	AUX PRK LAMP(S) (CUTAWAY)	F3PA	15A	• X405 (Cutaway)
F4	FRT PRK LAMP(S)	F4PA	10A	• E2LF Side Marker Lamp - Left Front • E2RF Side Marker Lamp - Right Front • E4N Park/Turn Signal Lamp - Left • E4P Park/Turn Signal Lamp - Right
F5	TRLR PRK LAMP(S)	F5PA	15A	• X88 Trailer Connector (UY7)
F6	UPFTR PRK LAMP(S)	F6PA	10A	• Not Used
F7	RT REAR PRK LAMP	F7PA	10A	• E5T Tail/Stop and Turn Signal Lamp - Right (Cargo or Passenger)
F8	LT REAR PARK LAMP	F8PA	10A	• E5S Tail/Stop and Turn Signal Lamp - Left (Cargo or Passenger) • E7 License Plate Lamp (Cargo or Passenger)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F9	OSRVM SW	F9PA	5A	• B174W Frontview Camera - Windshield • S52 Outside Rearview Mirror Switch (DEB or DE5)
F10	AIRBAG/AOS	F10PA	10A	• K36 Inflatable Restraint Sensing and Diagnostic Module
F11	ONSTAR	F11PA	10A	• K73 Telematics Communication Interface Control Module (UE1)
F12	FRONT CAM MODULE	F12PA	15A	• Not Used
F13	HVAC2	F13PA	10A	• K33A HVAC Control Module - Auxiliary • KR32B Blower Motor High Speed Relay - Auxiliary (C69/C36/ENC) • KR32C Blower Motor Low Speed Relay - Auxiliary (C69/C36/ENC) • KR32D Blower Motor Medium Speed Relay - Auxiliary (C69/C36/ENC) • KR81 Auxiliary Battery Relay 1 (TP3) • M6 Air Temperature Door Actuator • M6B Air Temperature Door Actuator - Auxiliary (C69/C36/ENC) • M37B Mode Door Actuator - Auxiliary (C69/C36/ENC) • S34 HVAC Controls Switch Assembly (C49/DE5/C60) • S34F HVAC Controls Switch Assembly - Auxiliary Front • S34R HVAC Controls Switch Assembly - Auxiliary Rear (Rear HVAC Controls)
F14	HVAC1	F14PA	20A	• S34 HVAC Controls Switch Assembly • X81 Accessory Power Receptacle - 110V AC (KI4)
F15	REF LED DISPLAY	F15PA	10A	• P43 Collision Alert Indicators
F17	OSRVM HTR	F17PA	20A	• A9A Outside Rearview Mirror - Driver (DEB or DE5) • A9B Outside Rearview Mirror - Passenger (DEB or DE5)
F18	REAR DEFOG	F18PA	30A	• E18L Rear Defogger Grid - Left (C49) • E18R Rear Defogger Grid - Right (C49)
F19	CMPS	F19PA	10A	• B176 Multi-axis Acceleration Sensor Module • K18 Compass Module (U80)
F20	RDO/CHIME	F20PA	15A	• A11 Radio (Without UL5) • A12 Digital Radio Receiver Control Module (U2K or UBS)
F21	RFA/TPM	F21PA	10A	• K77 Remote Control Door Lock Receiver (ATG or UJM)
F22	IGN SW (DLIS)/PK3	F22PA	2A	• K64 Content Theft Deterrent Control Module • S39 Ignition Switch
F23	I/P CLUSTER	F23PA	10A	• P16 Instrument Cluster (Without 8S8)
F25	HVAC CNTRL	F25PA	10A	• S34 HVAC Controls Switch Assembly (C49 or DE5)
F26	AUX/TRLR BCK/UP	F26PA	10A	• P3 Backup Alarm (8S3) • X88 Trailer Connector • X405 (Cutaway)
F27	TAIL LAMP(S) BCK/UP	F27PA	10A	• E5A Backup Lamp - Left (Cargo or Passenger) • E5B Backup Lamp - Right (Cargo or Passenger)

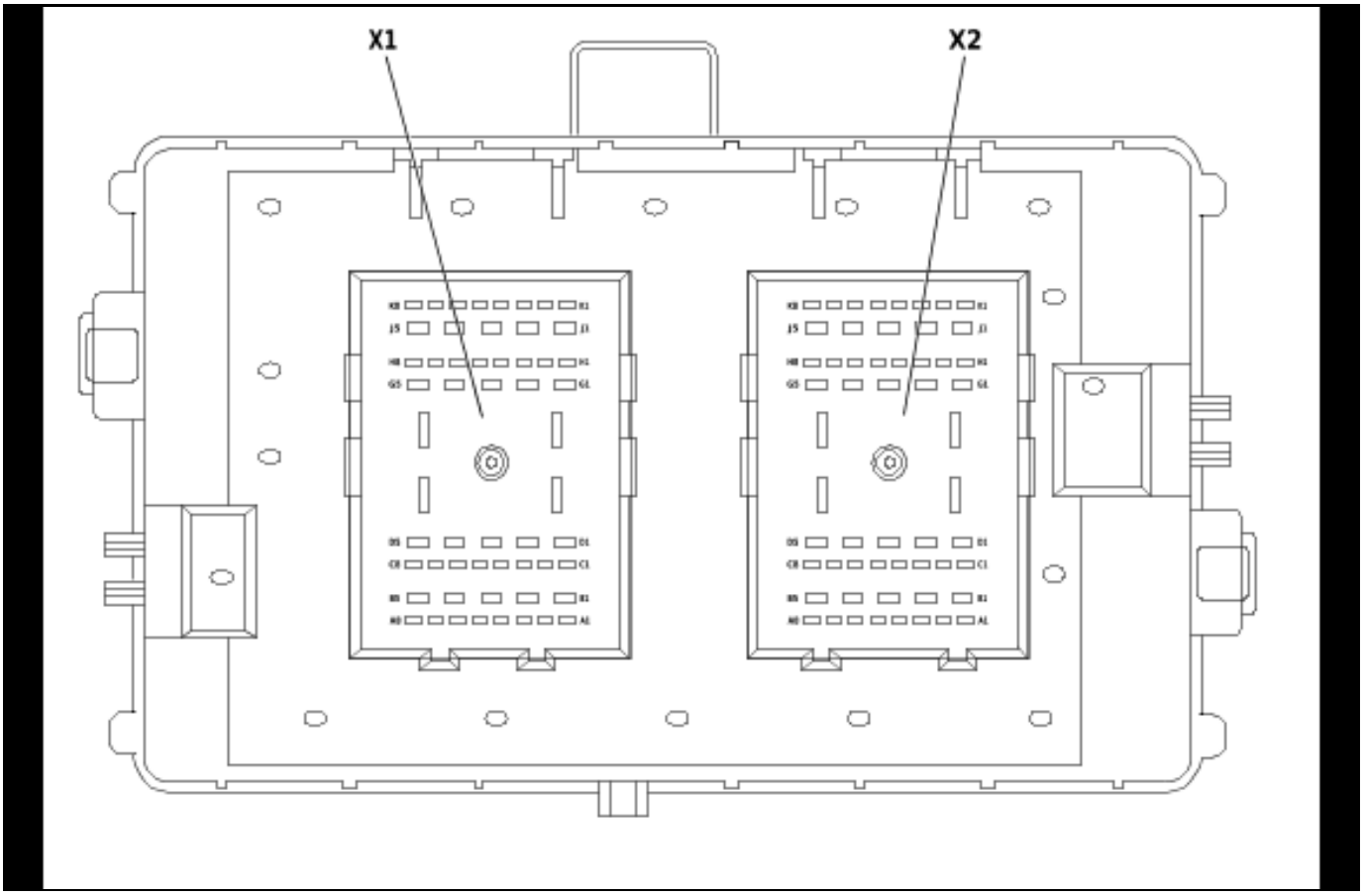
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F30	UPFTR CTSY LAMP(S)	F30PA	15A	• E36AC Dome Lamp - Left Roof Rail (Cargo) • E36AD Dome Lamp - Right Roof Rail (Cargo) • E36AH Dome Lamp (Cargo) • E37F Dome/Reading Lamps - Front • E37M Dome/Reading Lamps - Middle (Passenger) • E37R Dome/Reading Lamps - Rear (Passenger) • K9 Body Control Module • X405
F31	FRT DR LCK	F31PA	15A	• A23D Door Latch Assembly - Driver (AU3) • A23P Door Latch Assembly - Passenger (AU3)
F32	REAR DR LCK	F32PA	15A	• M13 Door Latch Assembly - Rear Cargo (Passenger or Cargo with AU3) • M14RR Door Lock Actuator - Right Rear (E24 or YA2) • X87RB Sliding Door Jamb Contact Plate - Right Body (E24 or YA2)
F33	CARGO DR UNLCK	F33PA	15A	• M13 Door Latch Assembly - Rear Cargo (Cargo or Passenger with AU3)
F34	FRT PASS DR UNLCK	F34PA	15A	• A23P Door Latch Assembly - Passenger (AU3)
F35	REAR PASS DR UNLCK	F35PA	15A	• KR90A Cargo Door Unlock Relay (AU3) • M14RR Door Lock Actuator - Right Rear (AU3) • X87RB Sliding Door Jamb Contact Plate - Right Body (AU3)
F36	DVR DR UNLCK	F36PA	15A	• A23D Door Latch Assembly - Driver (AU3)
F37	EMPTY	F37PA	15A	• Not Used
F38	EMPTY	F38PA	15A	• Not Used
J-Case Fuses				
F16	UPFITTER AUX1	F16PA	50A	• W12 Blunt Cut - Emergency Vehicle Provision (YF1) • X289 (PRP)
F24	EMPTY	F24PA	30A	• Not Used
F28	UPFITTER AUX2	F28PA	50A	• W12 Blunt Cut - Emergency Vehicle Provision (YF1)
F29	REAR BLOWER	F29PA	30A	• KR32B Blower Motor High Speed Relay - Auxiliary (C36/C69/ENC) • KR32C Blower Motor Low Speed Relay - Auxiliary (C36/C69/ENC) • KR32D Blower Motor Medium Speed Relay - Auxiliary (C36/C69/ENC)
Circuit Breakers				
CB1	PWR SEATS	CB1PA	25A	• S64D Seat Adjuster Switch - Driver (AG1) • S64P Seat Adjuster Switch - Passenger (AG2)
CB2	PWR WINDOW(S)	CB2PA	25A	• S79D Window Switch - Driver (A31) • S79P Window Switch - Passenger (A31)
Relays				
K1	RUN	KR74 Ignition Run Relay	—	• F13PA • F14PA • F15PA • F19PA • KR77 Ignition Power Provision Relay
K2	EMPTY	KR150 Relay - Spare	—	• Not Used

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
K3	PRK LAMP(S)	KR53 Park Lamps Relay	—	• F3PA • F4PA • F5PA • F6PA • F7PA • F8PA
K4	UPFTR AUX2	KR77 Ignition Power Provision Relay	—	• F28PA
K5	REAR DEFOG	KR5 Rear Defogger Relay	—	• F17PA • F18PA
K6	RAP	KR76 Retained Accessory Power Relay	—	• CB2PA • F37PA • F38PA
Important: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
K7	BCK/UP	KR40 Backup Lamp Relay	—	• F26PA • F27PA
K8	UPFTR CTSY LAMP(S)	KR78 Courtesy Lamps Provision Relay	—	• F30PA
K9A	FTR REAR PASS DR UNLCK	KR90P Passenger/ Cargo Door Unlock Relay	—	• F34PA • F35PA
K9B	DRVR DR UNLCK	KR92D Driver Door Unlatch Relay	—	• F36PA
K10A	FTR REAR DR LCK	KR97 Door Lock Relay	—	• F31PA • F32PA
K10B	CARGO DR UNLCK	KR90A Cargo Door Unlock Relay	—	• F33PA

X52A Fuse Block - Passenger Compartment Bottom View



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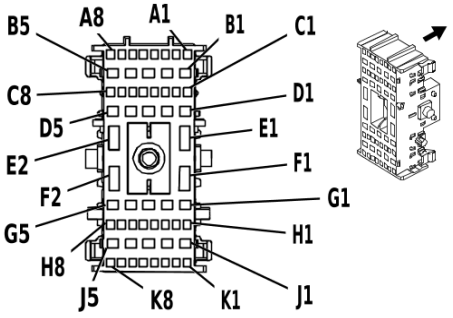
X52A Fuse Block - Passenger Compartment X1



2083844

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15477823
Service Connector: 13574911
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575465	J-35616-44 (YE)	J-38125-558
II	13575735	J-35616-14 (GN)	J-38125-215A
III	13575753	J-35616-4A (PU)	J-38125-215A

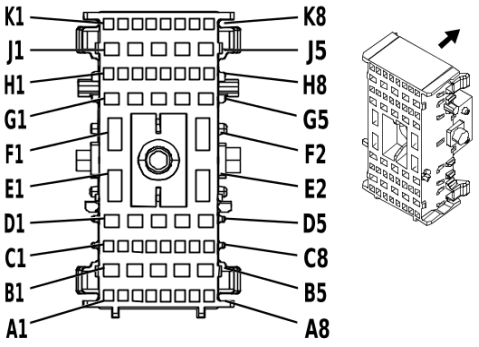
X52A Fuse Block - Passenger Compartment X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A3	—	—	—	Not Occupied	—	—
A4	0.5	YE	6817	LED Backlight Dimming Control 1	II	—
A5	0.35	D-BU	45	Park Lamp Relay Control	II	—
A6	0.35	BN	6136	Control	II	—
A7 - A8	—	—	—	Not Occupied	—	—
B1	0.8	RD/WH	3240	Secondary Fused Battery Positive Voltage 32	III	—
B2	1	BN	2109	Trailer Park Lamp Control	III	—
B3	0.35	BN	341	Run Ignition 3 Voltage 3	III	—
B4	0.8	BN	2309	Front Park Lamp Control	III	—
B5	1	BN	2109	Trailer Park Lamp Control	III	—
C1	1	YE	618	Left Rear Turn Signal Lamp Control	II	—
C2	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	II	—
C3	1	D-GN	619	Right Rear Turn Signal Lamp Control	II	—
C4	0.35	WH	193	Rear Defogger Relay Control	II	—
C5	0.35	BN	341	Run Ignition 3 Voltage 3	II	—
C6	—	—	—	Not Occupied	—	—
C7	0.35	OG	300	Run Ignition 3 Voltage	II	—
C8 - D3	—	—	—	Not Occupied	—	—
D4	0.5	VT/BK	1639	Run/Crank Ignition 1 Voltage 16	III	—
D5	0.5 1	D-BU BN	6807 141	DC/AC Inverter Control Run Ignition 3 Voltage 1	III III	— —
E1	—	—	—	Not Occupied	—	—
E2	0.8	BK	350	Ground 3	I	—
F1 - G2	—	—	—	Not Occupied	—	—
G3	0.5 0.8	GY D-BU/WH	5861 1315	Passenger Side Object Detection LED Signal 1 Right Front Turn Signal Lamp Control	III III	— —
G4	1	RD/WH	340	Secondary Fused Battery Positive Voltage 3	III	—
G5	—	—	—	Not Occupied	—	—
H1	0.5 0.8	GY/YE L-BU/WH	5853 1314	Driver Side Side Object Detection LED Signal 1 Left Front Turn Signal Lamp Control	II II	— —
H2	0.8 1	D-BU/WH D-BU/WH	149 149	Courtesy Lamp Control Courtesy Lamp Control	II II	— —
H3	0.35	BK/WH	351	Ground 3	II	—
H4	0.35	YE	43	Accessory Voltage 0	II	—
H5	0.8	RD/WH	4440	Secondary Fused Battery Positive Voltage 44	II	—
H6	0.35	RD/WH	2840	Secondary Fused Battery Positive Voltage 28	II	—
H7	0.35	RD/WH	540	Secondary Fused Battery Positive Voltage 5	II	—
H8	0.5	RD/WH	5340	Secondary Fused Battery Positive Voltage 53	II	—
J1 - J4	—	—	—	Not Occupied	—	—

X52A Fuse Block - Passenger Compartment X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
J5	1	L-GN	1624	Trailer Backup Lamp Control	III	—
K1	—	—	—	Not Occupied	—	—
K2	0.5	YE	356	Driver Door Lock Relay Unlock Control	II	—
K3	0.5	L-BU	244	Passenger Door Lock Switch Lock Control	II	—
K4	0.5	L-BU	244	Passenger Door Lock Switch Lock Control	II	—
K5	0.5	YE	356	Driver Door Lock Relay Unlock Control	II	—
K6 - K7	—	—	—	Not Occupied	—	—
K8	0.35	D-BU	38	Backup Lamp Relay Control	II	—

X52A Fuse Block - Passenger Compartment X2



1581655

Connector Part Information

Harness Type: Body
OEM Connector: 15477822
Service Connector: 19115189
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	13575756	J-35616-4A (PU)	J-38125-215A
IV	19367554	J-35616-44 (YE)	J-38125-558

X52A Fuse Block - Passenger Compartment X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A2	—	—	—	Not Occupied	—	—
A3	0.5	RD/WH	3440	Secondary Fused Battery Positive Voltage 34	I	—
A4	0.5	BN	2509	Left Rear Park Lamp Control	I	—
A5	0.5	BN	2609	Right Rear Park Lamp Control	I	—

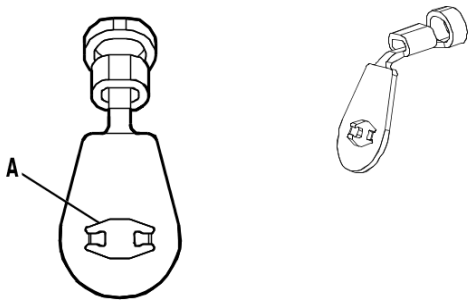
X52A Fuse Block - Passenger Compartment X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A6	0.5	RD/VT	102	Battery Positive Voltage 1	I	—
	0.5	RD/L-GN	3140	Secondary Fused Battery Positive Voltage 31	I	—
	0.5	RD/WH	4340	Secondary Fused Battery Positive Voltage 43	I	—
A7 - A8	—	—	—	Not Occupied	—	—
B1	3	RD/WH	3540	Secondary Fused Battery Positive Voltage 35	III	—
B2	3	RD/WH	3540	Secondary Fused Battery Positive Voltage 35	III	—
B3	1	RD/WH	3240	Secondary Fused Battery Positive Voltage 32	II	—
B4	0.5	BN	2209	Rear Park Lamp Control	II	—
B5 - C1	—	—	—	Not Occupied	—	—
C2	1	RD/WH	3240	Secondary Fused Battery Positive Voltage 32	I	—
C3	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
C4	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
C5	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
C6	1	D-GN	619	Right Rear Turn Signal Lamp Control	I	—
C7	1	YE	618	Left Rear Turn Signal Lamp Control	I	—
C8	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
D1	5	PU	293	Rear Defogger Grid Control	III	—
D2	5	PU	293	Rear Defogger Grid Control	III	—
D3	0.8	OG	2267	Outside Rearview Mirror Heater Control	II	—
D4	0.8	OG	2267	Outside Rearview Mirror Heater Control	II	—
D5	1	RD/WH	440	Secondary Fused Battery Positive Voltage 4	II	—
E1	—	—	—	Not Occupied	—	—
E2	5	RD/BK	1042	Primary Fused Battery Positive Voltage 10	IV	—
F1	5	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	IV	—
F2	5	BN	541	Run Ignition 3 Voltage 5	IV	—
G1	3	D-GN	1001	Retained Accessory Power Control 2	III	—
G2	3	D-GN	1001	Retained Accessory Power Control 2	III	—
G3	—	—	—	Not Occupied	—	—
G4	1	GY	295	Door Lock Actuator Lock Control	II	—
G5	1	GY	295	Door Lock Actuator Lock Control	II	—
H1	—	—	—	Not Occupied	—	—
H2	0.5	BK/BN	6045	Steering Angle Sensor Low Reference	I	—
H3	0.35	BK/WH	351	Ground 3	I	—
H4	—	—	—	Not Occupied	—	—
H5	0.5	D-BU/WH	1315	Right Front Turn Signal Lamp Control	I	—
H6	0.5	L-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
H7	0.5	D-BU/WH	149	Courtesy Lamp Control	I	—
H8	0.5	D-BU/WH	149	Courtesy Lamp Control	I	—
	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
	1	D-BU/WH	149	Courtesy Lamp Control	I	—
J1	0.8	TN	694	Driver Door Lock Actuator Unlock Control	II	—
J2	1	TN	294	Door Lock Actuator Unlock Control	II	—
J3	0.8	TN	294	Door Lock Actuator Unlock Control	II	—
J4	0.8	TN	294	Door Lock Actuator Unlock Control	II	—
J5	0.8	GY	295	Door Lock Actuator Lock Control	II	—

X52A Fuse Block - Passenger Compartment X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
K1 - K2	—	—	—	Not Occupied	—	—
K3	1	TN/BK	1095	Right Rear Door Lock Actuator Unlock Control	I	—
K4 - K6	—	—	—	Not Occupied	—	—
K7	1	TN	294	Door Lock Actuator Unlock Control	I	—
K8	1	L-GN	24	Backup Lamp Control	I	—

X52A Fuse Block - Passenger Compartment X3



4831037

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12160241
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

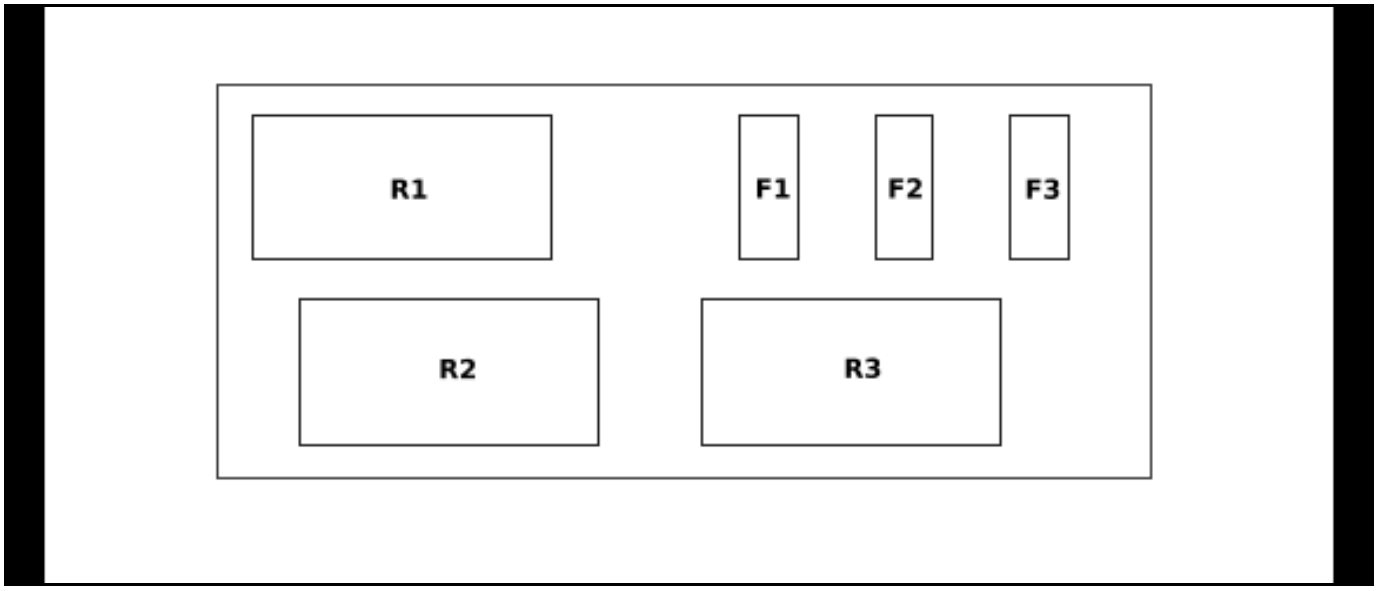
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

X52A Fuse Block - Passenger Compartment X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	842	Primary Fused Battery Positive Voltage 8	I	—

X53A Fuse Block - Rear Body Top View (PRP)

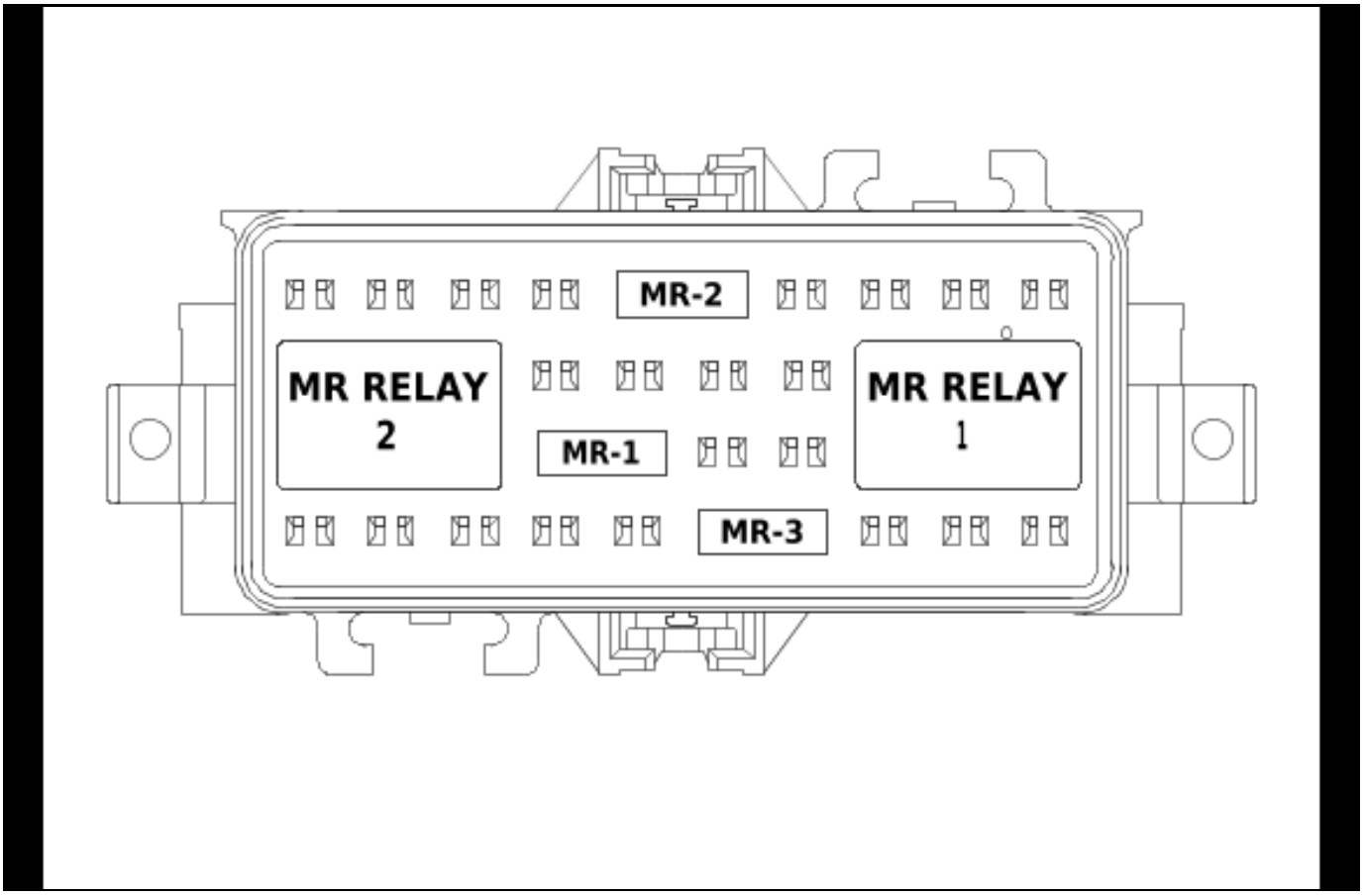


3988749

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	DOME FLUORESCENT WORK LAMPS	F1RA	10A	• E21A Fluorescent Work Lamp - Right Access Panel • E21F Fluorescent Work Lamp - Front Cargo • E21LF Fluorescent Work Lamp - Left Front Access Panel • E21R Fluorescent Work Lamp - Rear Cargo • E21LR Fluorescent Work Lamp - Left Rear Access Panel
F2	PANEL ACTUATOR	F2RA	15A	• KR89LF Left Front Access Panel Relay • KR89LR Left Rear Access Panel Relay • KR89RR Right Rear Access Panel Relay
F3	SPARE	F3RA	—	• Not Used
Relays				
R1	LEFT REAR ACCESS PANEL RELAY	KR89LR Left Rear Access Panel Relay	—	• M2C Access Panel Unlatch Actuator - Left Rear Side Front • M2D Access Panel Unlatch Actuator - Left Rear Side Rear
R2	LEFT FRONT ACCESS PANEL RELAY	KR89LF Left Front Access Panel Relay	—	• M2A Access Panel Unlatch Actuator - Left Front Side Front • M2B Access Panel Unlatch Actuator - Left Front Side Rear
R3	RIGHT REAR ACCESS PANEL RELAY	KR89RR Right Rear Access Panel Relay	—	• M2E Access Panel Unlatch Actuator - Right Side Front • M2F Access Panel Unlatch Actuator - Right Side Rear

X54D Fuse Block - Fuel Heater Top View

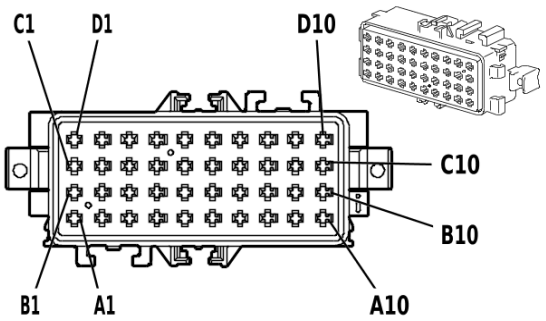


4845613

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	MR-1	F1BA	30A	• E11A Fuel Heater/Water in Fuel Sensor
F2	MR-2	F2BA	30A	• K115 Reductant Control Module
F3	MR-3	F3BA	10A	• K115 Reductant Control Module
Relays				
R1	MR RELAY 1	KR22 Fuel Heater Relay	—	• F1BA
R2	MR RELAY 2	KR121A Reductant Control Module Relay 1	—	• F2BA • F3BA

X54D Fuse Block - Fuel Heater



2002692

Connector Part Information

Harness Type: Engine
OEM Connector: 13607200
Service Connector: Service by Component Assembly - See Part Catalog
Description: 40-Way F 2.8 MCP Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300440	J-35616-4A (PU)	J-38125-557

X54D Fuse Block - Fuel Heater

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A5	—	—	—	Not Occupied	—	—
A6	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	I	—
A7	2	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
A8 - A10	—	—	—	Not Occupied	—	—
B1	2.5	RD/YE	2	Battery Positive Voltage	I	—
B2	—	—	—	Not Occupied	—	—
B3	0.5	D-BU	3017	Fuel Heater Relay 1 Control	I	—
B4	2.5	VT/L-GN	355	—	I	—
B5	2.5	RD/WH	6440	Secondary Fused Battery Positive Voltage 64	I	—
B6 - B7	—	—	—	Not Occupied	—	—
B8	2.5	RD/YE	2	Battery Positive Voltage	I	—
B9	—	—	—	Not Occupied	—	—
B10	0.5	L-GN/BU	3889	Powertrain Sensor Bus Relay Control	I	—
C1	2.5	RD/YE	2	Battery Positive Voltage	I	—
C2	—	—	—	Not Occupied	—	—
C3	2.5	RD/WH	6440	Secondary Fused Battery Positive Voltage 64	I	—
C4 - C7	—	—	—	Not Occupied	—	—
C8	2.5	RD/YE	2	Battery Positive Voltage	I	—
C9	—	—	—	Not Occupied	—	—
C10	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
D1 - D4	—	—	—	Not Occupied	—	—
D5	2.5	D-BU	3921	—	I	—

X54D Fuse Block - Fuel Heater (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
D6	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
D7 - D10	—	—	—	Not Occupied	—	—

X55AF Fuse Holder - Engine Control Module

—

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 35034412
Service Connector: Service by Harness - See Part Catalog
Description: Fuse Holder

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

X55AF Fuse Holder - Engine Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	8	RD	2	Battery Positive Voltage	I	—
2	8	RD	2	Battery Positive Voltage	I	—

X55AS Fuse Holder - Rear Body Fuse Block

—

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 35034411
Service Connector: Service by Harness - See Part Catalog
Description: —

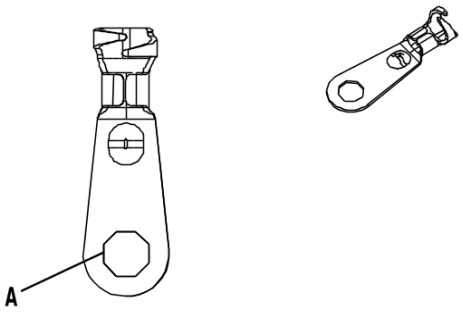
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

X55AS Fuse Holder - Rear Body Fuse Block

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	8	RD	2	Battery Positive Voltage	I	—
2	8	RD	2	Battery Positive Voltage	I	—

X60A Junction Block - Underhood (LWN (Auxiliary Battery))



3214043

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12146361
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

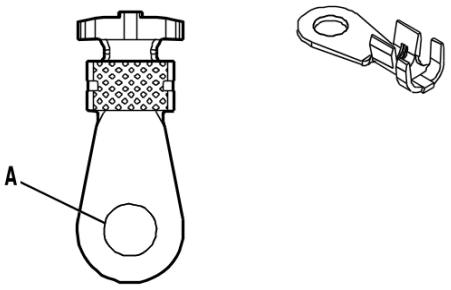
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

X60A Junction Block - Underhood (LWN (Auxiliary Battery))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

X60A Junction Block - Underhood (LWN (Primary Battery))



4937555

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12103014
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

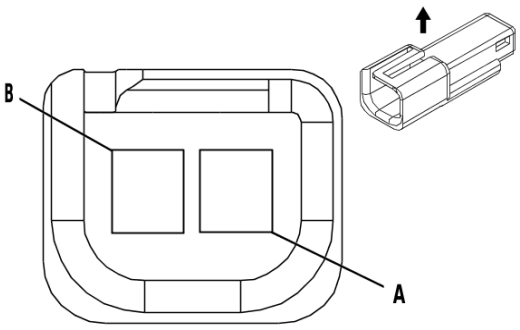
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

X60A Junction Block - Underhood (LWN (Primary Battery))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—
	8	RD	2	Battery Positive Voltage		—

Component Connector End Views

A3R Sunshade - Right



35441

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663

Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

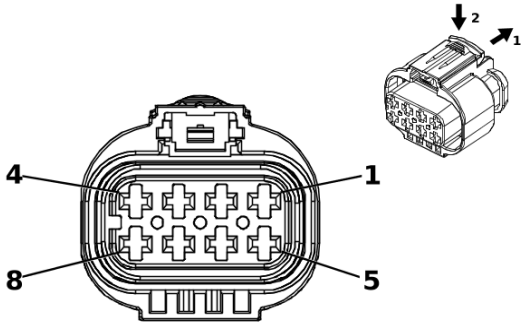
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required

A3R Sunshade - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	1732	Control Module 12V Reference 3	I	—
B	0.5	BK	1850	Ground 18	I	—

A7 Fuel Pump and Level Sensor Assembly (LWN)



3749581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180017
Service Connector: 19355165
Description: 8-Way F 2.8 Series, Sealed (BK)

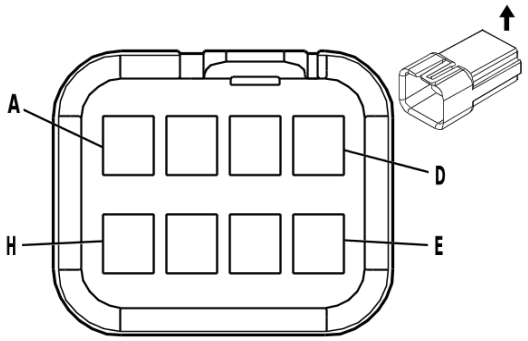
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

A7 Fuel Pump and Level Sensor Assembly (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	2.5	GY	120	Fuel Pump Control	I	—
4	2	BK	150	Ground 1	I	—
5	0.5	D-BU/VT	1589	Primary Fuel Level Sensor Signal 2	I	—
6	0.5	BK/L-GN	6281	Fuel Level Sensor Low Reference	I	—
7 - 8	—	—	—	Not Occupied	—	—

A9A Outside Rearview Mirror - Driver



62434

Connector Part Information

Harness Type: Driver Door
OEM Connector: 12065396
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series (NA)

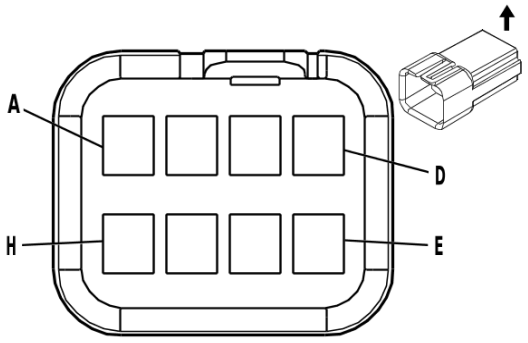
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required

A9A Outside Rearview Mirror - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	450	Ground 4	I	—
B	0.5	L-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
C	0.8	OG	2267	Outside Rearview Mirror Heater Control	I	—
D	0.5	BK	450	Ground 4	I	—
E	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—
F	0.35	L-GN	89	Left Outside Rearview Mirror Motor Down Control	I	—
G	0.35	WH	81	Left Outside Rearview Mirror Motor Right Control	I	—
H	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—

A9B Outside Rearview Mirror - Passenger



62434

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 12162427
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series (NA)

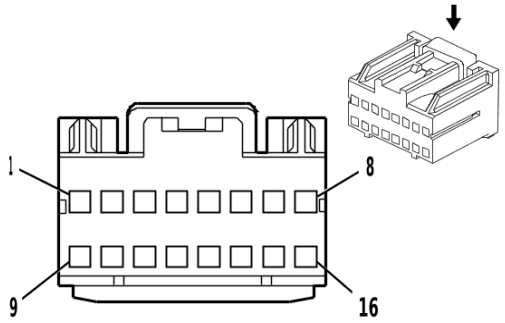
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required

A9B Outside Rearview Mirror - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	1850	Ground 18	I	—
B	0.5	D-BU/WH	1315	Right Front Turn Signal Lamp Control	I	—
C	0.8	OG	2267	Outside Rearview Mirror Heater Control	I	—
D	0.5	BK	1850	Ground 18	I	—
E	0.35	BN/WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—
F	0.35	PU/WH	889	Right Outside Rearview Mirror Motor Down Control	I	—
G	0.35	OG/WH	881	Right Outside Rearview Mirror Motor Right Control	I	—
H	0.35	BN/WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—

A10 Inside Rearview Mirror (-(UEU/UFL))



1711009

Connector Part Information

Harness Type: Headliner
OEM Connector: 15441350
Service Connector: 15306351
Description: 16-Way F 100A Micro-Pack Series (BK)

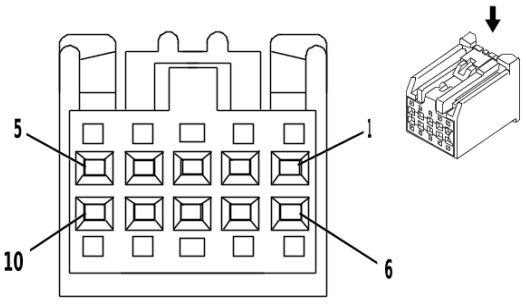
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575548	J-35616-16 (LT GN)	J-38125-559

A10 Inside Rearview Mirror (-(UEU/UFL))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 5	—	—	—	Not Occupied	—	—
6	0.5	BU	7641	Frontview Camera 2 Signal [+]	I	—
7	0.5	BU	7642	Frontview Camera 2 Signal [-]	I	—
8	0.5	BK/WH	351	Ground 3	I	—
9	0.5	L-GN	24	Backup Lamp Control	I	—
10 - 12	—	—	—	Not Occupied	—	—
13	0.5	PK	239	Run/Crank Ignition 1 Voltage 2	I	—
14 - 16	—	—	—	Not Occupied	—	—

A10 Inside Rearview Mirror (UEU/UFL)



2180211

Connector Part Information

Harness Type: Headliner
OEM Connector: 13815336
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series (BK)

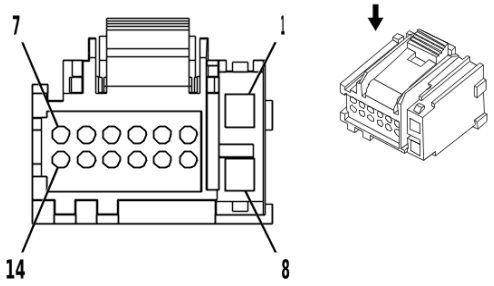
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (LT BU)	J-38125-215A

A10 Inside Rearview Mirror (UEU/UFL)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/WH	24	Backup Lamp Control	I	—
2	0.5	VT/WH	239	Run/Crank Ignition 1 Voltage 2	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	BK/WH	351	Ground 3	I	—
6	0.5	D-BU	7641	Frontview Camera 2 Signal [+]	I	—
7	0.5	WH	7642	Frontview Camera 2 Signal [-]	I	—
8 - 10	—	—	—	Not Occupied	—	—

A11 Radio X1



2684742

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13545675
Service Connector: 13580448
Description: 14-Way F 0.64 Micro-Pack, 150 GT Series (BK)

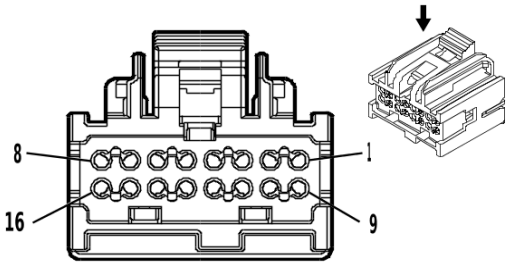
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13579976	J-35616-64B (LT BU)	J-38125-21
III	13582245	J-35616-64B (LT BU)	J-38125-21

A11 Radio X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	RD/WH	340	Secondary Fused Battery Positive Voltage 3	I	—
2	0.8	D-BU	1857	Left Front Midrange Speaker [+] Control	II	—
3	0.8	OG	1853	Right Front Midrange Speaker [+] Control	II	—
4	0.8	GY	655	Cellular Telephone Microphone Signal	II	—
5	0.8	D-GN	654	Cellular Telephone Microphone Low Reference	II	—
6	—	—	—	Not Occupied	—	—
7	0.35	YE	6817	LED Backlight Dimming Control 1	III	—
8	1	BK/WH	351	Ground 3	I	—
9	0.8	L-BU	1957	Left Front Midrange Speaker [-] Control	II	—
10	0.8	D-GN	1953	Right Front Midrange Speaker [-] Control	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.35	D-GN	5060	Low Speed GMLAN Serial Data	III	—
14	—	—	—	Not Occupied	—	—

A11 Radio X2



2127936

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13567860
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series, Sealed (PU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579976	J-35616-64B (LT BU)	J-38125-21
II	13582245	J-35616-64B (LT BU)	J-38125-21

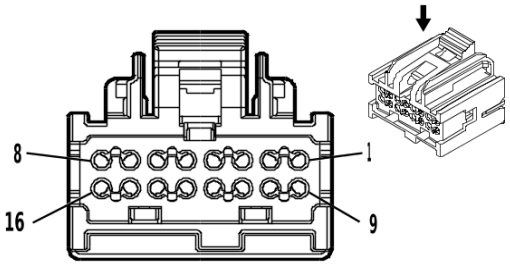
A11 Radio X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/WH	367	Secondary Radio Receiver Left Audio Signal	II	—
2	0.35	D-GN/WH	368	Secondary Radio Receiver Right Audio Signal 1	II	—
3 - 4	—	—	—	Not Occupied	—	—

A11 Radio X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5	0.8	TN	1859	Left Rear Midrange Speaker [+] Control	I	—
6	0.8	TN	1855	Right Rear Midrange Speaker [+] Control	I	—
7	0.8	D-BU	658	Cellular Telephone Voice Signal	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	TN/WH	372	Secondary Radio Receiver Audio [-] Control	II	—
10	0.35	GY	388	Secondary Radio Receiver Right Audio Signal 2	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.8	WH	1959	Left Rear Midrange Speaker [-] Control	I	—
14	0.8	OG	1955	Right Rear Midrange Speaker [-] Control	I	—
15	0.8	L-BU/BK	659	Cellular Telephone Voice Low Reference	I	—
16	—	—	—	Not Occupied	—	—

A12 Digital Radio Receiver Control Module X1



2127936

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13568238
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579976	J-35616-64B (LT BU)	J-38125-21
II	13582245	J-35616-64B (LT BU)	J-38125-21

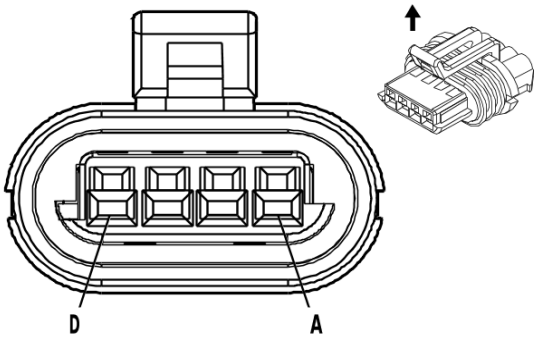
A12 Digital Radio Receiver Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	TN/WH	372	Secondary Radio Receiver Audio [-] Control	II	—
2	0.35	BN/WH	367	Secondary Radio Receiver Left Audio Signal	II	—
3	0.35	D-GN/WH	368	Secondary Radio Receiver Right Audio Signal 1	II	—
4	0.35	GY	388	Secondary Radio Receiver Right Audio Signal 2	II	—
5	0.5	D-GN	5060	Low Speed GMLAN Serial Data	I	—

A12 Digital Radio Receiver Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
6 - 8	—	—	—	Not Occupied	—	—
9	0.8	BK/WH	351	Ground 3	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	Bare	1573	Front Audio Low Reference	II	—
12 - 15	—	—	—	Not Occupied	—	—
16	0.8	RD/WH	340	Secondary Fused Battery Positive Voltage 3	I	—

A23D Door Latch Assembly - Driver X1



684948

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15354716
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

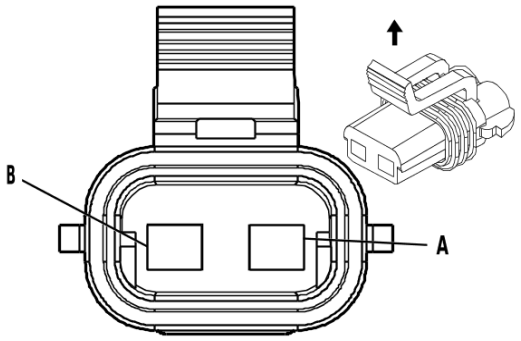
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

A23D Door Latch Assembly - Driver X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	TN	126	Left Front Door Open Switch Signal	I	—
B	0.35	GY/BK	745	Left Front Door Ajar Switch Signal	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	BK	450	Ground 4	I	—

A23D Door Latch Assembly - Driver X2



68721

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

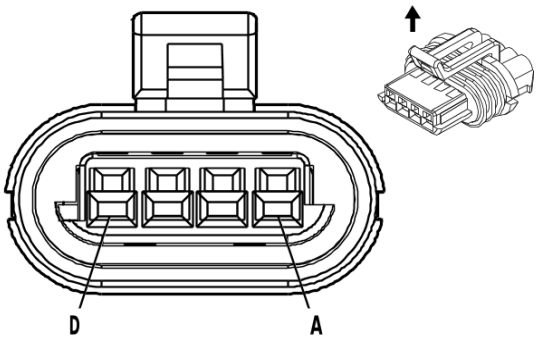
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

A23D Door Latch Assembly - Driver X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	694	Driver Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

A23P Door Latch Assembly - Passenger X1



684948

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15354716
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

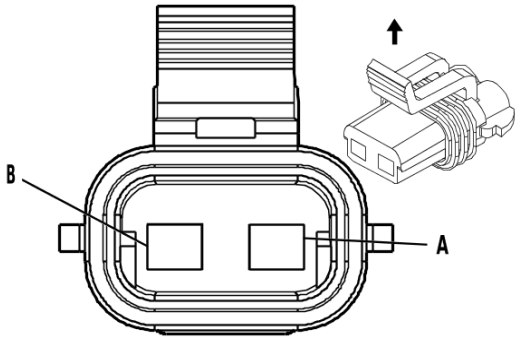
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

A23P Door Latch Assembly - Passenger X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground 18	I	—
B	—	—	—	Not Occupied	—	—
C	0.35	TN/WH	746	Right Front Door Ajar Switch Signal	I	—
D	0.35	L-GN	1177	Right Front Door Open Switch Signal	I	—

A23P Door Latch Assembly - Passenger X2



68721

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

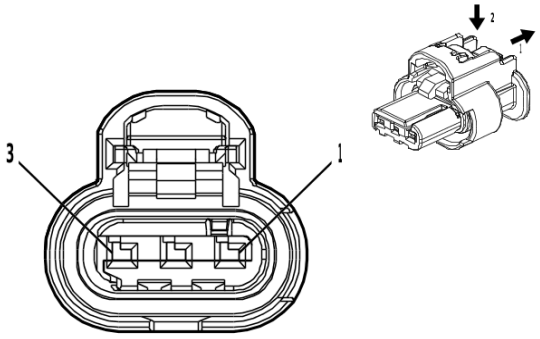
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

A23P Door Latch Assembly - Passenger X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

B1 A/C Refrigerant Pressure Sensor (-LWN)



4581126

Connector Part Information

Harness Type: Engine
OEM Connector: 33358800
Service Connector: 19366844
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

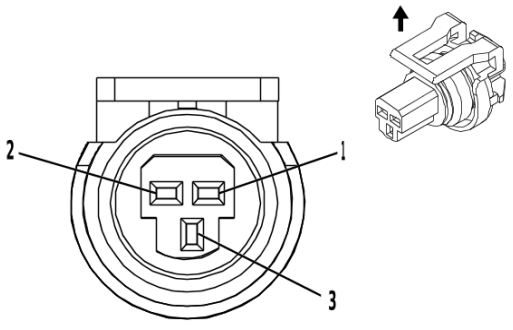
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B1 A/C Refrigerant Pressure Sensor (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
2	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	I	—
3	0.5	BK/GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—

B1 A/C Refrigerant Pressure Sensor (LWN)



2909191

Connector Part Information

Harness Type: Engine
OEM Connector: 13846842

Service Connector: 19368669
Description: 3-Way F 150 GT Series, Sealed (BK)

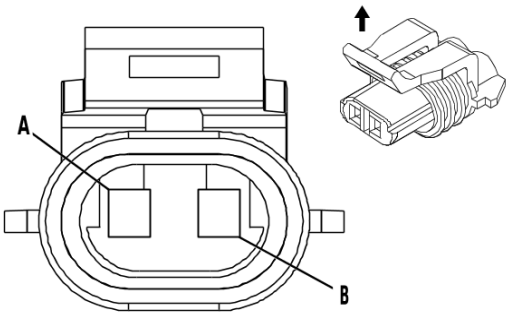
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B1 A/C Refrigerant Pressure Sensor (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	—
2	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	I	—
3	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	I	—

B1B A/C Low Side Pressure Switch



537107

Connector Part Information

Harness Type: Engine
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

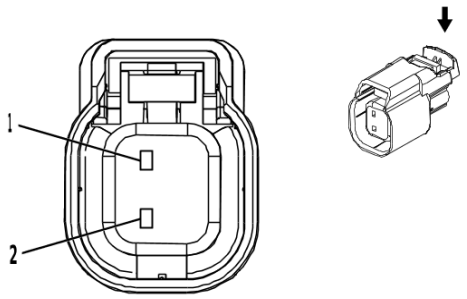
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B1B A/C Low Side Pressure Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN	66	A/C Request Signal	I	—
B	0.5	BN/WH	66	A/C Request Signal	I	—

B5LF Wheel Speed Sensor - Left Front



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

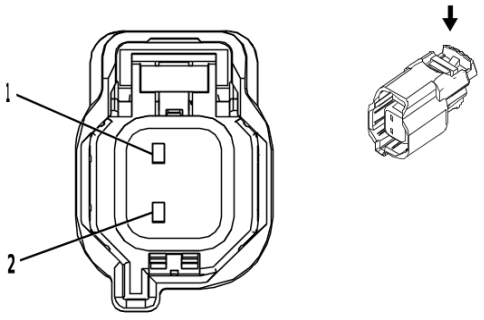
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5LF Wheel Speed Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	7064	Left Front Wheel Speed Sensor Control	I	—
2	0.5	GY	830	Left Front Wheel Speed Sensor Signal	I	—

B5LR Wheel Speed Sensor - Left Rear (-R04)



3651383

Connector Part Information

Harness Type: Chassis
OEM Connector: 15540141
Service Connector: 19366863
Description: 2-Way F 1.5 Series, Sealed (L-GY)

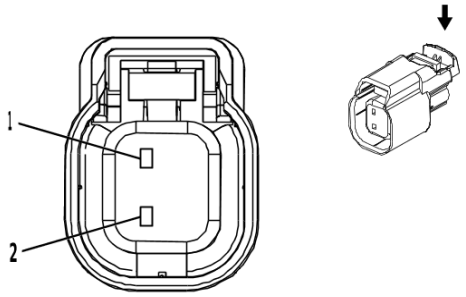
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5LR Wheel Speed Sensor - Left Rear (-R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BK	7127	Left Rear Wheel Speed Sensor Control	I	—
2	0.5	D-BU	884	Left Rear Wheel Speed Sensor Signal	I	—

B5LR Wheel Speed Sensor - Left Rear (R04)



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

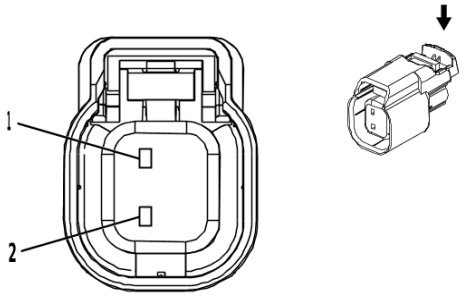
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5LR Wheel Speed Sensor - Left Rear (R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BK	7127	Left Rear Wheel Speed Sensor Control	I	—
2	0.5	D-BU	884	Left Rear Wheel Speed Sensor Signal	I	—

B5RF Wheel Speed Sensor - Right Front (-LWN)



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

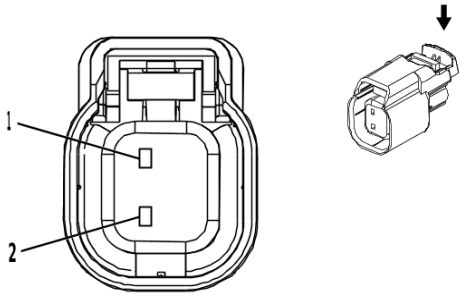
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5RF Wheel Speed Sensor - Right Front (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	7065	Right Front Wheel Speed Sensor Control	I	—
2	0.5	YE	872	Right Front Wheel Speed Sensor Signal	I	—

B5RF Wheel Speed Sensor - Right Front (LWN)



2792100

Connector Part Information

Harness Type: Engine
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

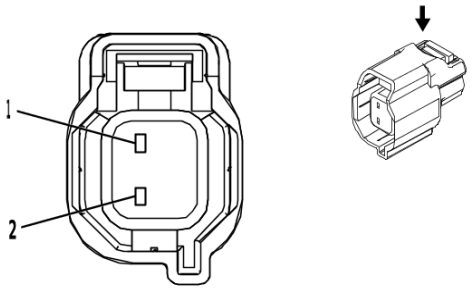
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5RF Wheel Speed Sensor - Right Front (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	7065	Right Front Wheel Speed Sensor Control	I	—
2	0.5	YE	872	Right Front Wheel Speed Sensor Signal	I	—

B5RR Wheel Speed Sensor - Right Rear (-R04)



2900396

Connector Part Information

Harness Type: Chassis
OEM Connector: 15503634
Service Connector: 19366856
Description: 2-Way F 1.5 Series (L-GY)

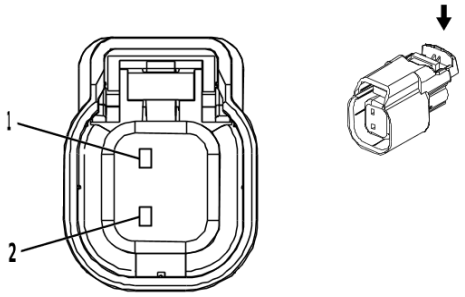
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5RR Wheel Speed Sensor - Right Rear (-R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/YE	7128	Right Rear Wheel Speed Sensor Control	I	—
2	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	I	—

B5RR Wheel Speed Sensor - Right Rear (R04)



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

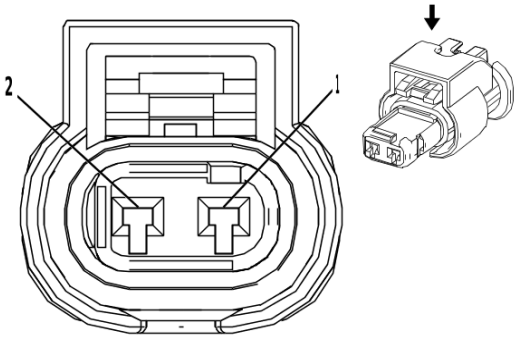
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5RR Wheel Speed Sensor - Right Rear (R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/YE	7128	Right Rear Wheel Speed Sensor Control	I	—
2	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	I	—

B9 Ambient Air Temperature Sensor (-UFA)



2474752

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13927761
Service Connector: 19366858
Description: 2-Way F 1.2 MCP Series, Sealed (BK with BK Inner Connector)

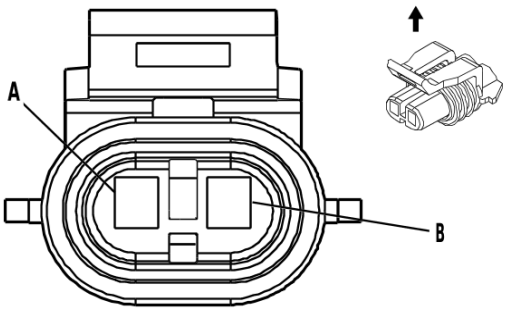
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B9 Ambient Air Temperature Sensor (-UFA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/BK	735	Ambient Air Temperature Sensor Signal 2	I	—
2	0.5	BK/YE	407	Sensor Low Reference	I	—

B9 Ambient Air Temperature Sensor (UFA)



684793

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12052642
Service Connector: 12101856
Description: 2-Way F 150 Metri-Pack Series, Sealed (L-GN)

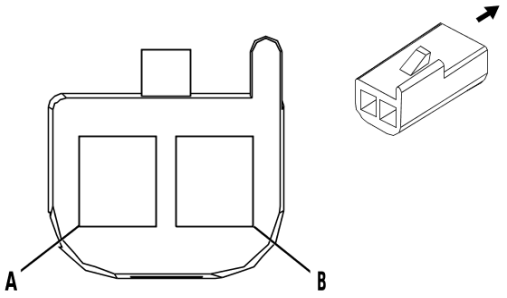
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B9 Ambient Air Temperature Sensor (UFA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU/GY	636	Ambient Air Temperature Sensor Signal	I	—
B	0.5	BK/BU	61	Ambient Air Temperature Sensor Low Reference	I	—

B10 Ambient Light Sensor



82383

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

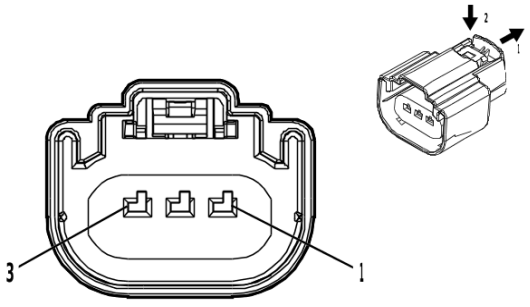
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B10 Ambient Light Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	WH	278	Ambient Light Sensor Signal	I	—
B	0.35	BK/WH	351	Ground 3	I	—

B18 Battery Current Sensor



4569745

Connector Part Information

Harness Type: Engine
OEM Connector: 33343869
Service Connector: 19179750
Description: 3-Way F 150 MX Series, Sealed (BK)

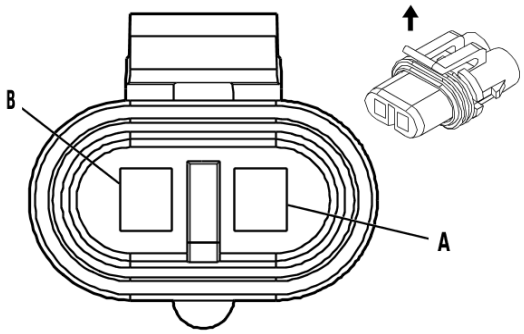
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B18 Battery Current Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/VT	5076	Current Sensor Voltage Reference	I	—
2	0.5	BK/VT	5077	Current Sensor Low Reference	I	—
3	0.5	WH/YE	5075	Current Sensor Signal	I	—

B19A Brake Booster Fluid Pressure Alarm Switch



646148

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 12020599
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

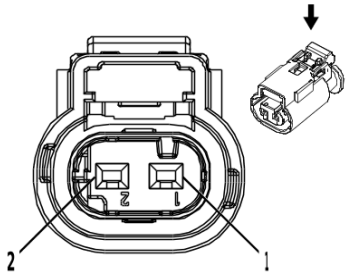
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

B19A Brake Booster Fluid Pressure Alarm Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	TN/WH	33	Brake Warning Indicator Control	I	—
B	0.5	L-BU/BK	1928	Brake Booster Fluid Flow Alarm Switch Signal	I	—

B20 Brake Fluid Level Switch



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

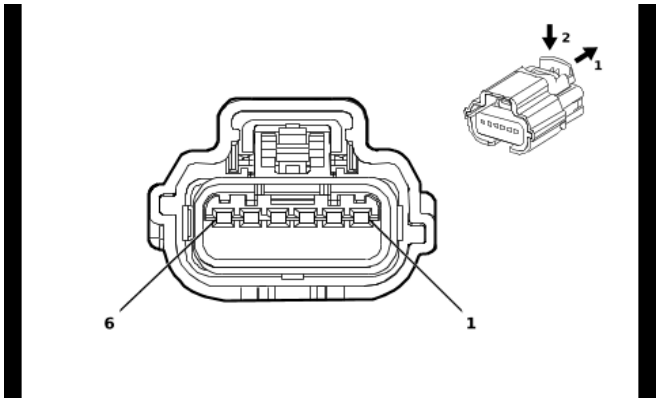
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B20 Brake Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK/WH	1551	Ground 15	I	—
2	0.75	GN/GY	333	Brake Fluid Level Switch Signal	I	—

B22 Brake Pedal Position Sensor



4773396

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35199160
Service Connector: 84683650
Description: 6-Way F 64 Series, Sealed (NA)

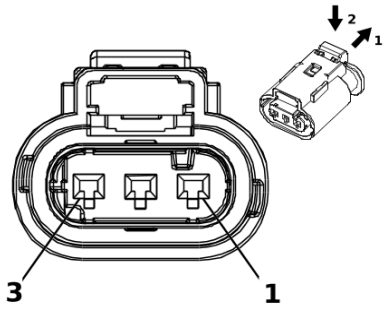
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B22 Brake Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	5382	Brake Position Sensor Low Reference	I	—
2	0.5	GY	5381	Brake Position Sensor 5V Reference	I	—
3	0.5	TN	5380	Brake Position Sensor Signal	I	—
4	0.5	YE	5361	Brake Apply Sensor Signal	I	—
5	0.5	BN	5360	Brake Apply Sensor Low Reference	I	—
6	0.5	WH	5359	Brake Apply Sensor Voltage Reference	I	—

B23 Camshaft Position Sensor



2717069

Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

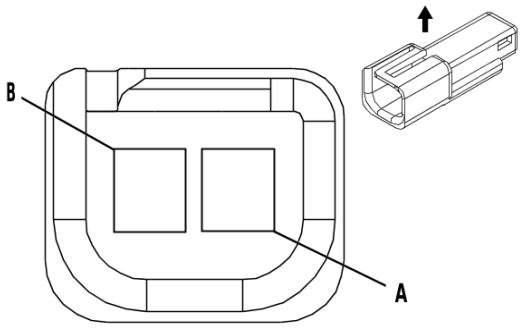
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B23 Camshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	I	—
2	0.5	BK/L-GN	5301	Intake Camshaft Position Sensor Low Reference 1	I	—
3	0.5	YE/VT	5275	Intake Camshaft Position Sensor 1	I	—

B24 Mobile Telephone Microphone



35441

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

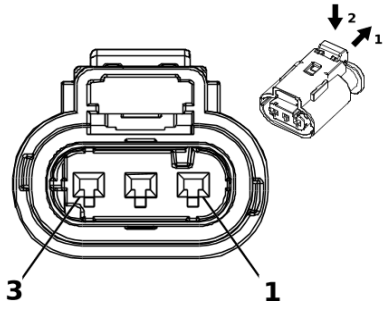
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required

B24 Mobile Telephone Microphone

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-GN	654	Cellular Telephone Microphone Low Reference	I	—
B	0.8	GY	655	Cellular Telephone Microphone Signal	I	—

B26 Crankshaft Position Sensor



2717069

Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

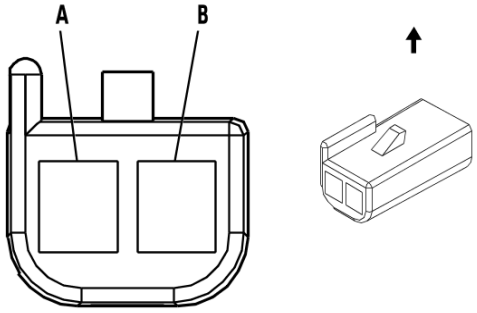
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B26 Crankshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	6270	Crankshaft Position Sensor Voltage	I	—
2	0.5	BK/VT	6272	Crankshaft Position Sensor Low Reference	I	—
3	0.5	L-GN	6271	Crankshaft Position Sensor Signal	I	—

B28F Door Ajar Switch - Right Sliding



35451

Connector Part Information

Harness Type: Body
OEM Connector: 12059251
Service Connector: 12101848
Description: 2-Way F 150 Metri-Pack Series (RD)

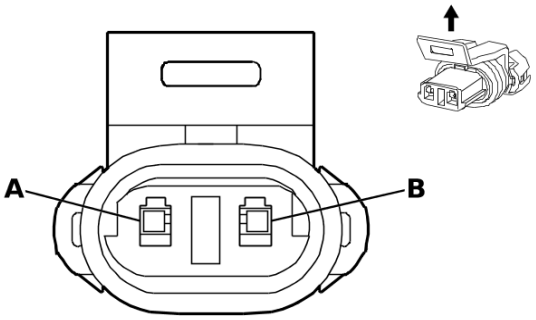
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B28F Door Ajar Switch - Right Sliding

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground 18	I	—
B	0.35	YE/BK	1181	Right Rear Door Open Switch Signal	I	—

B33 Engine Coolant Level Switch (LWN)



655783

Connector Part Information

Harness Type: Engine
OEM Connector: 15324243
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

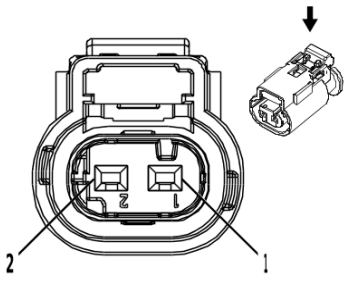
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B33 Engine Coolant Level Switch (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	L-GN/YE	1478	Coolant Level Switch Signal	I	—
B	0.5	BK/WH	351	Ground 3	I	—

B34 Engine Coolant Temperature Sensor (LV1)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

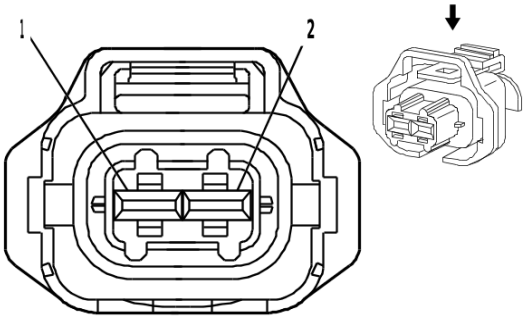
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B34 Engine Coolant Temperature Sensor (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	I	—
2	0.5	BK/YE	548	Engine Control Sensors Low Reference 1	I	—

B34 Engine Coolant Temperature Sensor (LWN)



1403270

Connector Part Information

Harness Type: Engine
OEM Connector: 15363766
Service Connector: 88953309
Description: 2-Way F 2.8 Junior Power Timer Series, Sealed (BK)

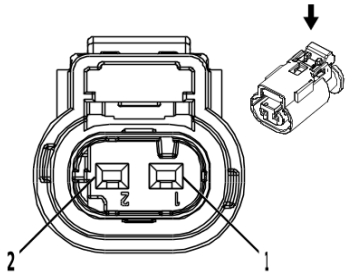
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

B34 Engine Coolant Temperature Sensor (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	I	—
2	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—

B35 Engine Oil Level Switch (-LV1)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

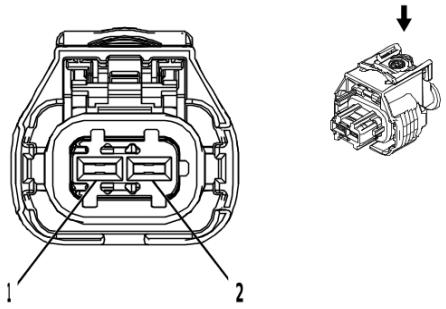
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B35 Engine Oil Level Switch (-LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	—
2	0.75	BK/WH	1551	Ground 15	I	—

B35 Engine Oil Level Switch (LV1)



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

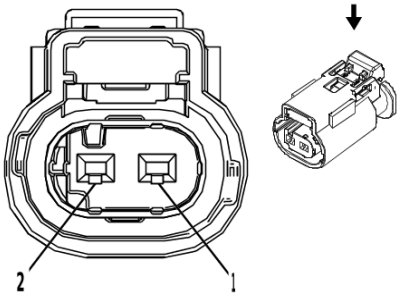
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

B35 Engine Oil Level Switch (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	—
2	0.75	BK/WH	1551	Ground 15	I	—

B36 Engine Oil Temperature Sensor



2830969

Connector Part Information

Harness Type: Engine
OEM Connector: 13840071
Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

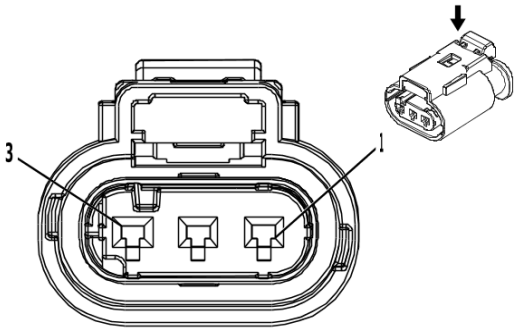
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B36 Engine Oil Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/BU	357	Oil Temperature Sensor Signal	I	—
2	0.5	BK/YE	548	Engine Control Sensors Low Reference 1	I	—

B37B Engine Oil Pressure Sensor



3240107

Connector Part Information

Harness Type: Engine
OEM Connector: 13889776
Service Connector: 19301717
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

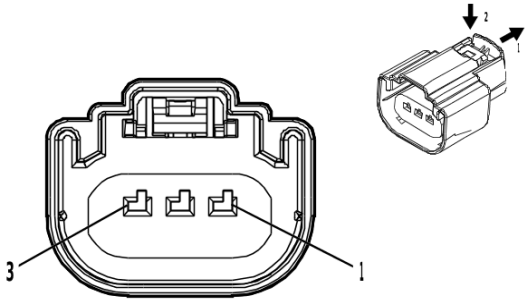
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B37B Engine Oil Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
	0.5	BK/YE	548	Engine Control Sensors Low Reference 1	I	—
3	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—
	0.5	WH/RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—

B47 Fuel Pressure Sensor



4569745

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343869
Service Connector: 19179750
Description: 3-Way F 150 MX Series, Sealed (BK)

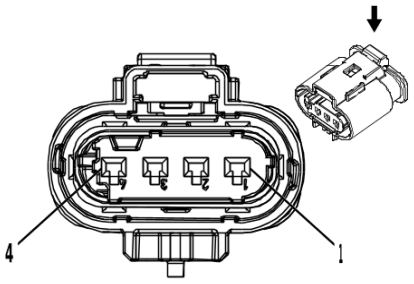
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

B47 Fuel Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/WH	7446	Fuel Pressure Sensor Signal	I	—
2	0.5	BK/YE	7447	Fuel Pressure Sensor Low Reference	I	—
3	0.5	BN/RD	7445	Fuel Pressure Sensor 5V Reference	I	—

B47B Fuel Rail Pressure Sensor



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

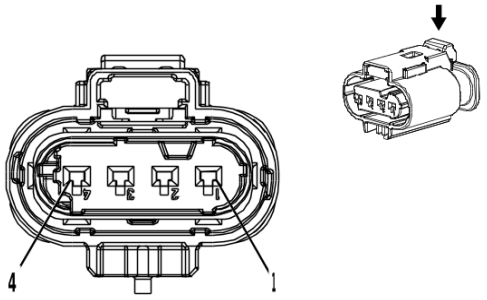
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B47B Fuel Rail Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
2	0.5	BN/YE	2161	Fuel Rail Pressure Sensor 2 Signal	I	—
3	0.5	BK/L-GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
4	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—

B52C Heated Oxygen Sensor - Bank 1 Sensor 1



4381050

Connector Part Information

Harness Type: Engine
OEM Connector: 33253021
Service Connector: 19354075
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

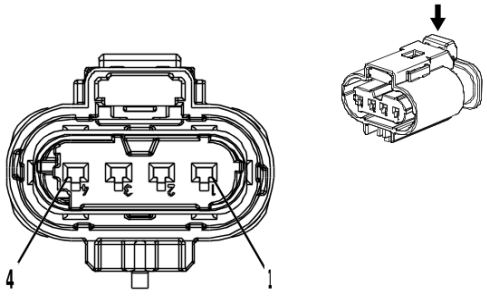
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B52C Heated Oxygen Sensor - Bank 1 Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	I	—
2	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
3	0.5	WH/BK	3111	HO2S Low Signal Bank 1 Sensor 1 (3)	I	—
4	0.5	VT/GY	3110	HO2S High Signal Bank 1 Sensor 1	I	—

B52D Heated Oxygen Sensor - Bank 1 Sensor 2



4036370

Connector Part Information

Harness Type: Engine
OEM Connector: 15532690
Service Connector: 19330920
Description: 4-Way F 1.2 Multilock Series, Sealed (GY)

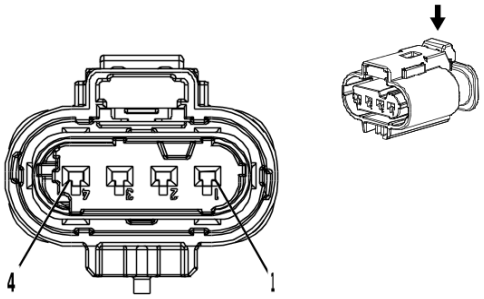
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B52D Heated Oxygen Sensor - Bank 1 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	I	—
2	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
3	0.5	WH/YE	3121	HO2S Low Signal Bank 1 Sensor 2	I	—
4	0.5	VT/BU	3120	HO2S High Signal Bank 1 Sensor 2	I	—

B52E Heated Oxygen Sensor - Bank 2 Sensor 1



4381050

Connector Part Information

Harness Type: Engine
OEM Connector: 33253021
Service Connector: 19354075
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

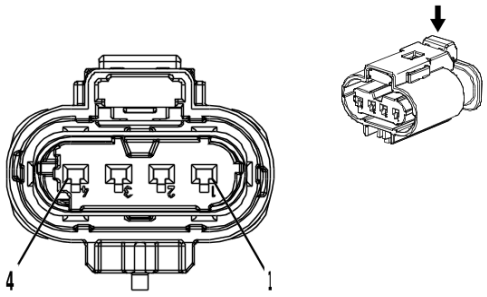
B52E Heated Oxygen Sensor - Bank 2 Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/YE	3212	HO2S Heater Low Control Bank 2 Sensor 1	I	—
2	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
3	0.5	YE/WH	3211	HO2S Low Signal Bank 2 Sensor 1	I	—

B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
4	0.5	VT/WH	3210	HO2S High Signal Bank 2 Sensor 1	I	—

B52F Heated Oxygen Sensor - Bank 2 Sensor 2



4036370

Connector Part Information

Harness Type: Engine
OEM Connector: 15532690
Service Connector: 19330920
Description: 4-Way F 1.2 Multilock Series, Sealed (GY)

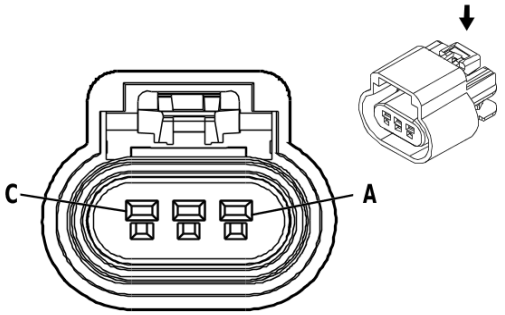
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B52F Heated Oxygen Sensor - Bank 2 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	3223	HO2S Heater Low Control Bank 2 Sensor 2	I	—
2	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
3	0.5	YE/BU	3221	HO2S Low Signal Bank 2 Sensor 2	I	—
4	0.5	VT/L-GN	3220	HO2S High Signal Bank 2 Sensor 2	I	—

B55 Engine Hood Switch



646415

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13519047
Service Connector: 19368886
Description: 3-Way F 150 GT Series, Sealed (BK)

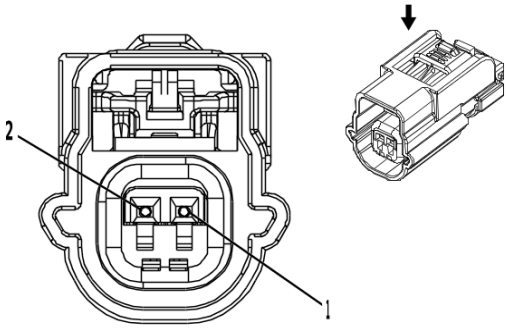
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

B55 Engine Hood Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN/GN	109	Hood Ajar Switch Signal	I	BTV
	0.5	PK/BK	109	Hood Ajar Switch Signal	I	-BTV
B	0.5	BK/BN	5531	Hood Closed Switch Signal	I	BTV
	0.5	PU	5531	Hood Closed Switch Signal	I	-BTV
C	0.5	BK	250	Ground 2	I	—

B59 Front Impact Sensor



3556418

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13593078

Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (GY)

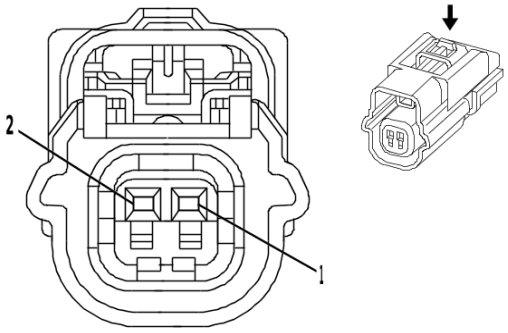
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B59 Front Impact Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	6618	Front Middle Impact Discriminating Sensor Signal	I	—
2	0.5	D-BU/WH	6619	Front Middle Impact Discriminating Sensor Low Reference	I	—

B63LF Side Impact Sensor - Left Front



1664592

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13528494
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Kaizen Series, Sealed (BK)

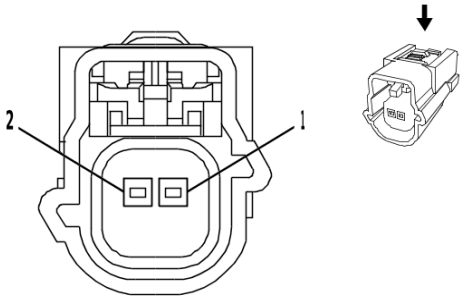
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B63LF Side Impact Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	2132	Left Front Side Impact Sensor Signal	I	—
2	0.5	PU/WH	6628	Left Front Side Impact Sensor Low Reference	I	—

B63LR Side Impact Sensor - Left Rear



2179777

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13610095
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (GY)

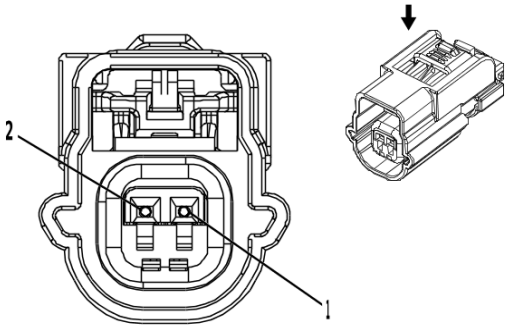
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B63LR Side Impact Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-GN/WH	6620	Left Middle Side Impact Sensor Signal	I	—
2	0.5	GY/BK	6621	Left Middle Side Impact Sensor Low Reference	I	—

B63RR Side Impact Sensor - Right Rear (E24)



3556418

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13593078
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (GY)

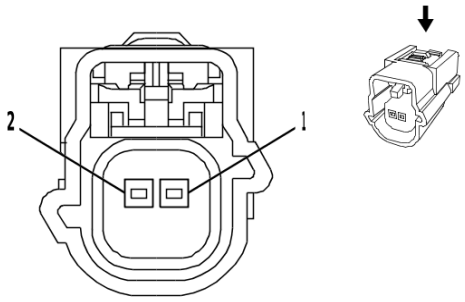
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B63RR Side Impact Sensor - Right Rear (E24)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-BU/BK	6624	Right Middle Side Impact Sensor Signal	I	—
2	0.5	L-GN/WH	6625	Right Middle Side Impact Sensor Low Reference	I	—

B63RR Side Impact Sensor - Right Rear (YA2)



2179777

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13610095
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (GY)

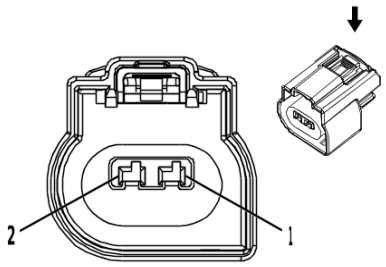
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B63RR Side Impact Sensor - Right Rear (YA2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-BU/BK	6624	Right Middle Side Impact Sensor Signal	I	—
2	0.5	L-GN/WH	6625	Right Middle Side Impact Sensor Low Reference	I	—

B68A Knock Sensor 1



2717073

Connector Part Information

Harness Type: Engine
OEM Connector: 13814755
Service Connector: 19301207
Description: 2-Way F 150 MX Series, Sealed (BK)

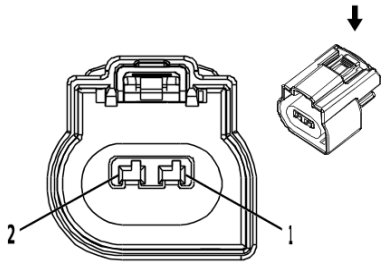
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

B68A Knock Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/GY	496	Knock Sensor 1 Signal	I	—
2	0.75	BK/YE	1716	Knock Sensor 1 Low Reference	I	—

B68B Knock Sensor 2



2717073

Connector Part Information

Harness Type: Engine
OEM Connector: 13814755
Service Connector: 19301207
Description: 2-Way F 150 MX Series, Sealed (BK)

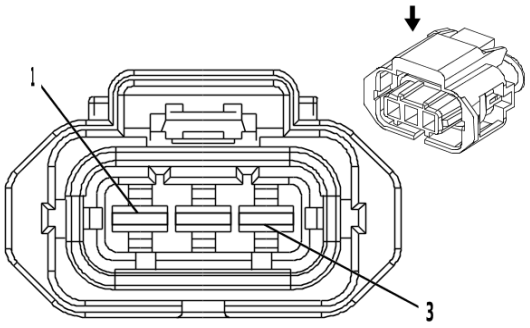
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

B68B Knock Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/GY	1876	Knock Sensor 2 Signal	I	—
2	0.75	BK/GY	2303	Knock Sensor 2 Low Reference	I	—

B74 Manifold Absolute Pressure Sensor



1914850

Connector Part Information

Harness Type: Engine
OEM Connector: 15397338
Service Connector: 13585845
Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (BK)

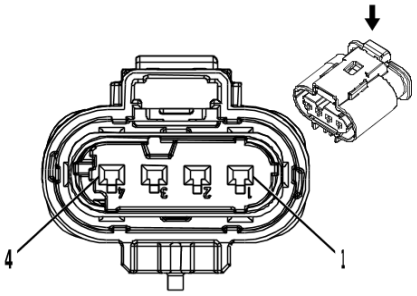
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

B74 Manifold Absolute Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
2	0.5	BK/L-GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
3	0.5	L-GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—

B75C Multifunction Intake Air Sensor (-LWN)



2717096

Connector Part Information

Harness Type: Engine
OEM Connector: 13815348
Service Connector: 13587298
Description: 4-Way F 1.2 Multilock Series, Sealed (L-GY)

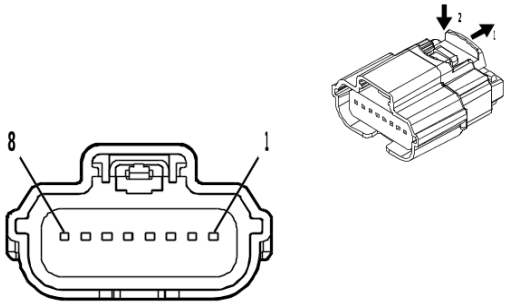
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B75C Multifunction Intake Air Sensor (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	—
2	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	I	—
3	0.5	L-GN/WH	4622	Engine Control Module LIN Bus 2	I	—
4	0.75	BK/WH	1551	Ground 15	I	—

B75C Multifunction Intake Air Sensor (LWN)



4708234

Connector Part Information

Harness Type: Engine
OEM Connector: 35192853

Service Connector: 84677313
Description: 8-Way F 64 Series, Sealed (BK)

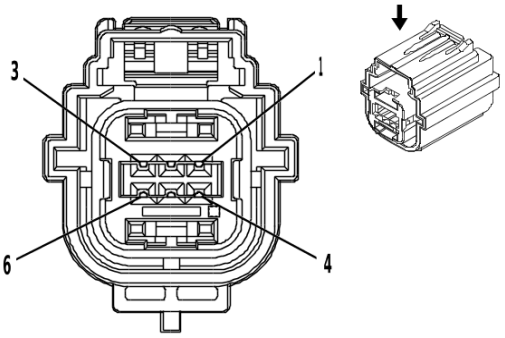
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B75C Multifunction Intake Air Sensor (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BU	6289	Intake Air Temperature Sensor Signal	I	—
2	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
3	0.5	BK/VT	2760	Intake Air Temperature Sensor Low Reference	I	—
4	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
5	0.75	VT/WH	1939	Run/Crank Ignition 1 Voltage 19	I	—
6	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	I	—
7	0.75	BK/WH	1551	Ground 15	I	—
8	0.5	BN/GY	4008	Humidity Sensor Signal	I	—

B87 Rearview Camera (-Cutaway)



2133378

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 13629704
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

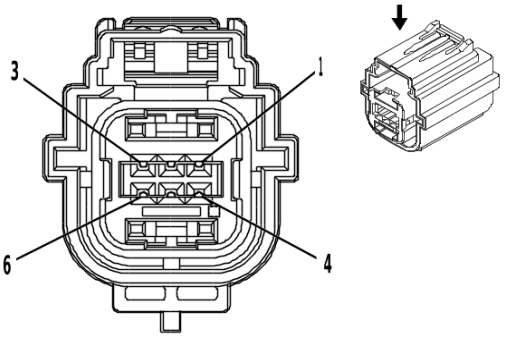
B87 Rearview Camera (-Cutaway)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	7641	Frontview Camera 2 Signal [+]	I	—

B87 Rearview Camera (-Cutaway) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.5	Bare	6799	Camera Shield Ground	I	—
3	0.5	L-GN	24	Backup Lamp Control	I	—
4	0.5	L-BU	7642	Frontview Camera 2 Signal [-]	I	—
5	0.5	BK	351	Ground 3	I	—
6	0.5	PK	239	Run/Crank Ignition 1 Voltage 2	I	—

B87 Rearview Camera (Cutaway)



2133378

Connector Part Information

Harness Type: Rearview Camera
OEM Connector: 13629704
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Series, Sealed (GY)

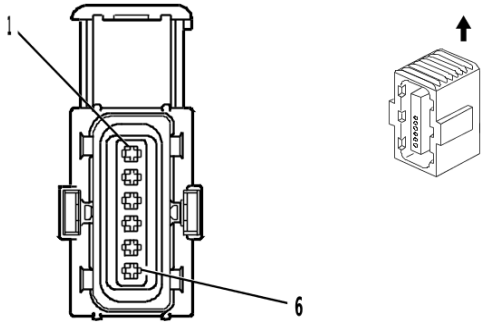
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B87 Rearview Camera (Cutaway)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	7641	Frontview Camera 2 Signal [+]	I	—
2	0.5	Bare	6799	Camera Shield Ground	I	—
3	0.5	L-GN	24	Backup Lamp Control	I	—
4	0.5	L-BU	7642	Frontview Camera 2 Signal [-]	I	—
5	0.5	BK/WH	351	Ground 3	I	—
6	0.5	PK	239	Run/Crank Ignition 1 Voltage 2	I	—

B107 Accelerator Pedal Position Sensor



1334452

Connector Part Information

Harness Type: Accelerator Pedal Position Sensor
OEM Connector: 15383136
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.2 Micro-Timer Series, Sealed (BK)

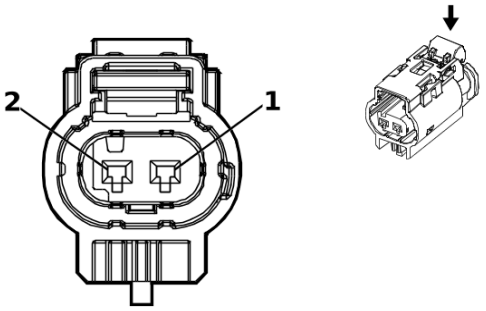
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B107 Accelerator Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	TN	1274	Accelerator Pedal Position 5V Reference 2	I	—
2	0.35	WH/BK	1164	Accelerator Pedal Position 5 Volt Reference 1	I	—
3	0.35	D-BU	1161	Accelerator Pedal Position Signal 1	I	—
4	0.35	BN	1271	Accelerator Pedal Position Low Reference 1	I	—
5	0.35	PU	1272	Accelerator Pedal Position Low Reference 2	I	—
6	0.35	L-BU	1162	Accelerator Pedal Position Signal 2	I	—

B130A Exhaust Gas Recirculation Temperature Sensor 1



5207726

Connector Part Information

Harness Type: Engine
OEM Connector: 33180624
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

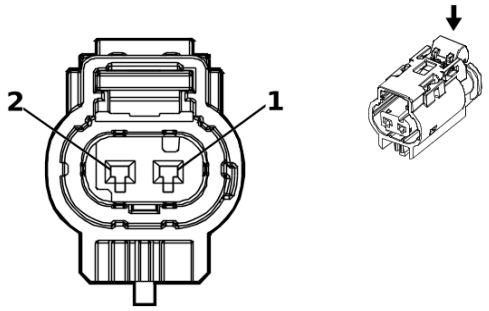
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B130A Exhaust Gas Recirculation Temperature Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	6275	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	I	—
2	0.5	YE/L-GN	3236	Exhaust Gas Recirculation Temperature Sensor 2 Signal	I	—

B130B Exhaust Gas Recirculation Temperature Sensor 2



3747581

Connector Part Information

Harness Type: Engine
OEM Connector: 33226772
Service Connector: 84727362
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

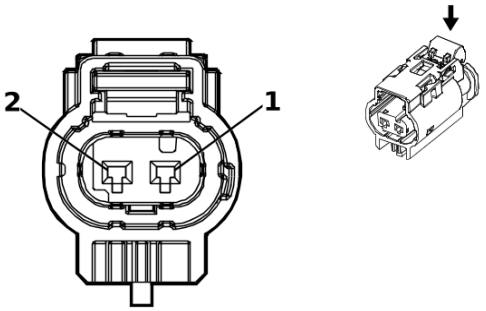
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B130B Exhaust Gas Recirculation Temperature Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BU	6274	Exhaust Gas Recirculation Temperature Sensor Low Reference	I	—
2	0.5	WH/BN	3237	Exhaust Gas Recirculation Temperature Sensor Signal	I	—

B131A Exhaust Temperature Sensor 1



3747581

Connector Part Information

Harness Type: Engine
OEM Connector: 33226772
Service Connector: 84727362
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

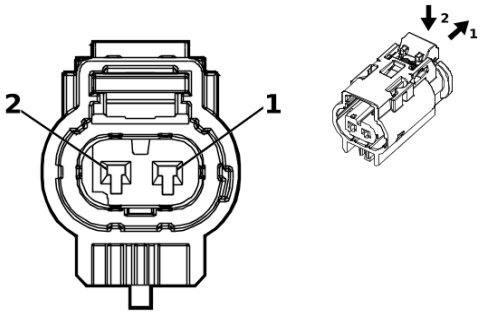
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B131A Exhaust Temperature Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	—
2	0.5	D-BU/WH	5277	Exhaust Gas Temperature Sensor 1 Signal	I	—

B131B Exhaust Temperature Sensor 2



3747580

Connector Part Information

Harness Type: Engine
OEM Connector: 33159713

Service Connector: 19332627
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

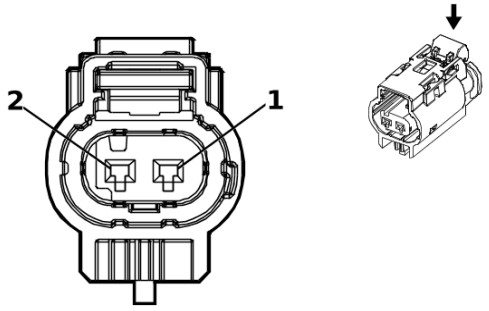
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B131B Exhaust Temperature Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	—
2	0.5	D-BU/ L-GN	5377	Exhaust Gas Temperature Sensor 2 Signal	I	—

B131C Exhaust Temperature Sensor 3



5207726

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180624
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

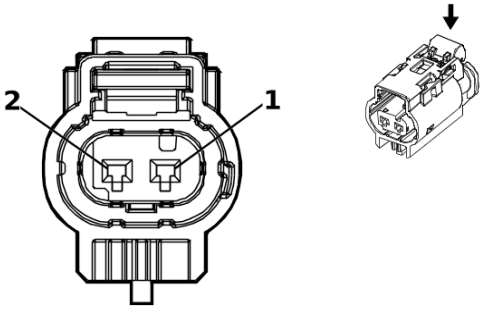
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B131C Exhaust Temperature Sensor 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/L-GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—
2	0.5	GY/L-GN	5378	Exhaust Gas Temperature Sensor 3 Signal	I	—

B131D Exhaust Temperature Sensor 4



3747581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33226772
Service Connector: 84727362
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

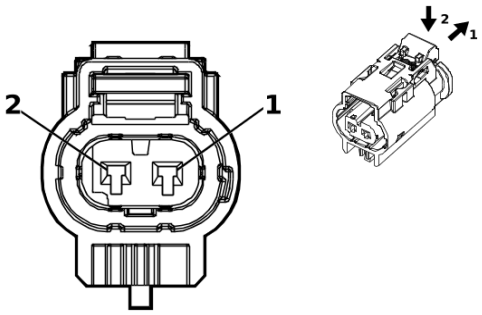
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B131D Exhaust Temperature Sensor 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/GY	3659	Exhaust Gas Temperature Sensor 4 Low Reference	I	—
2	0.5	VT/BN	3658	Exhaust Gas Temperature Sensor 4 Signal	I	—

B131E Exhaust Temperature Sensor 5



3747580

Connector Part Information

Harness Type: Chassis
OEM Connector: 33159713
Service Connector: 19332627
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

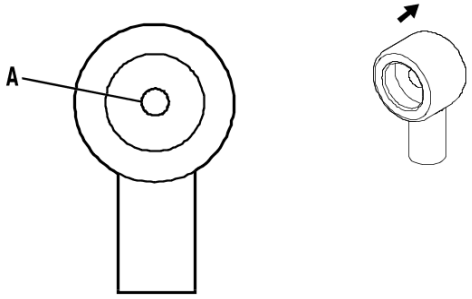
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B131E Exhaust Temperature Sensor 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/VT	3661	Exhaust Gas Temperature Sensor 5 Low Reference	I	—
2	0.5	D-BU/GY	3660	Exhaust Gas Temperature Sensor 5 Signal	I	—

B133 Brake Booster Fluid Flow Alarm Switch X1



2004808

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 6288440
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F Grip Series (BK)

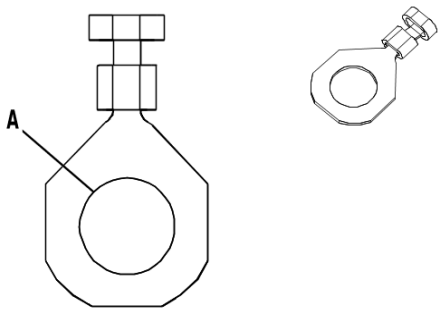
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

B133 Brake Booster Fluid Flow Alarm Switch X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	L-BU/BK	1928	Brake Booster Fluid Flow Alarm Switch Signal	I	—

B133 Brake Booster Fluid Flow Alarm Switch X2



3240148

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 12103516
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

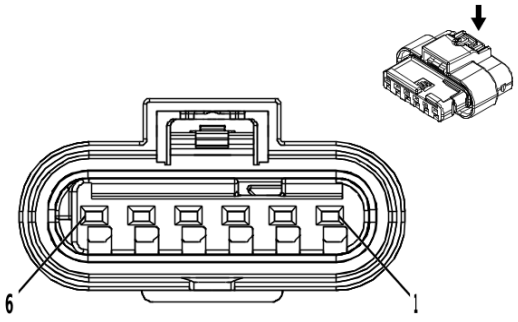
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

B133 Brake Booster Fluid Flow Alarm Switch X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK/WH	351	Ground 3	I	UJ1
	0.5	BK	350	Ground 3	I	-UJ1

B136 Exhaust Particulate Matter Sensor



3747582

Connector Part Information

Harness Type: Chassis
OEM Connector: 33226734
Service Connector: 19354530
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

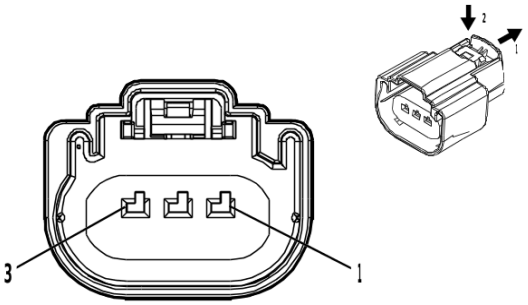
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B136 Exhaust Particulate Matter Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BK	150	Ground 1	I	—
2	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
3	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
4	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
5	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
6	1	GY	3672	NOx Sensor 2 Control	I	—

B150 Fuel Tank Pressure Sensor



4589538

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343864
Service Connector: 84569854
Description: 3-Way F 150 MX Series, Sealed (GY)

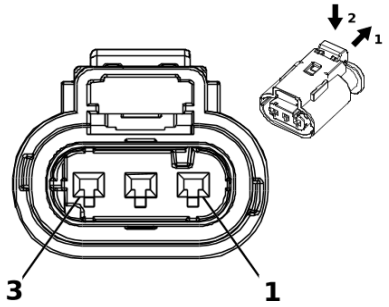
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B150 Fuel Tank Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/WH	890	Fuel Tank Pressure Sensor Signal	I	—
2	0.5	BK/BN	6284	Fuel Tank Pressure Sensor Low Reference	I	—
3	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor



2717069

Connector Part Information

Harness Type: Chassis
OEM Connector: 13763990
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

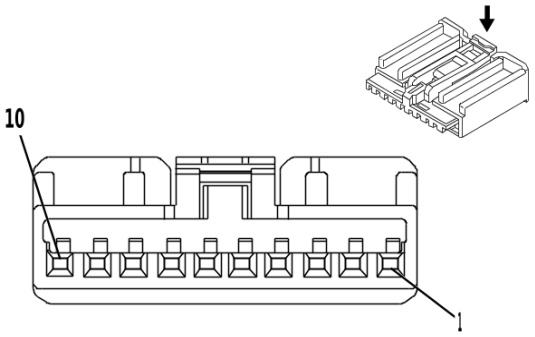
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU	6053	Exhaust Pressure Sensor 1 Signal	I	—
2	0.5	BK/YE	6055	Exhaust Pressure Sensor 1 Low Reference	I	—
3	0.5	WH/RD	6054	Exhaust Pressure Sensor 1 5V Reference	I	—

B174W Frontview Camera - Windshield



1862241

Connector Part Information

Harness Type: Headliner
OEM Connector: 13574592
Service Connector: 13576634
Description: 10-Way F 0.64 Kaizen Series (BK)

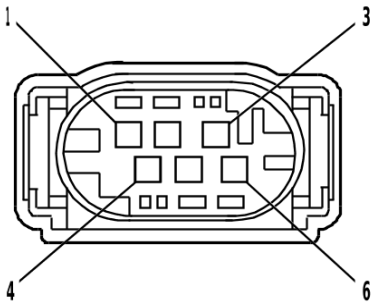
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (LT BU)	J-38125-215A

B174W Frontview Camera - Windshield

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1850	Ground 18	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	RD/L-GN	3140	Secondary Fused Battery Positive Voltage 31	I	—
4	0.5	WH	3152	Lane Departure Warning Indicator Control	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	—

B176 Multi-axis Acceleration Sensor Module



831393

Connector Part Information

Harness Type: Body
OEM Connector: 15355474
Service Connector: 15306420
Description: 6-Way F 0.64 Micro-Quadlock Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

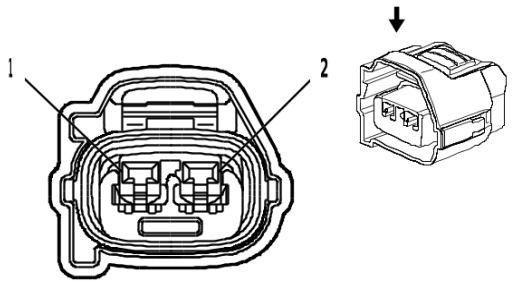
B176 Multi-axis Acceleration Sensor Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	6045	Run Ignition 3 Voltage	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data [+] 2	I	—

B176 Multi-axis Acceleration Sensor Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
6	0.5	BK/WH	2751	Ground 27	I	—

B193A Charge Air Cooler Inlet Temperature Sensor



2388842

Connector Part Information

Harness Type: Engine
OEM Connector: 15401053
Service Connector: 19368660
Description: 2-Way F 090 Series, Sealed (D-GY)

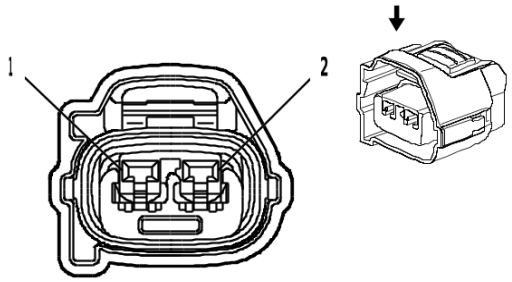
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-18 (BK)	No Tool Required

B193A Charge Air Cooler Inlet Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	—
2	0.5	YE/BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	—

B193B Charge Air Cooler Outlet Temperature Sensor



2388842

Connector Part Information

Harness Type: Engine
OEM Connector: 15401053
Service Connector: 19368660
Description: 2-Way F 090 Series, Sealed (D-GY)

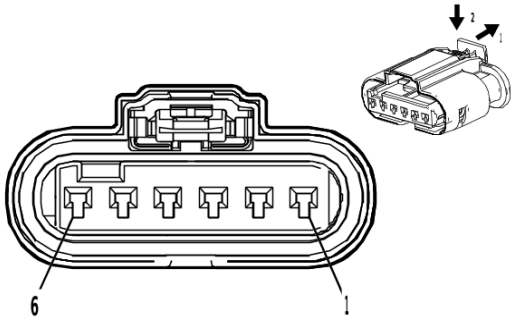
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-18 (BK)	No Tool Required

B193B Charge Air Cooler Outlet Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
2	0.5	YE/BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—

B195A Nitrogen Oxides Sensor 1



3960142

Connector Part Information

Harness Type: Engine
OEM Connector: 33230495
Service Connector: 19368560
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

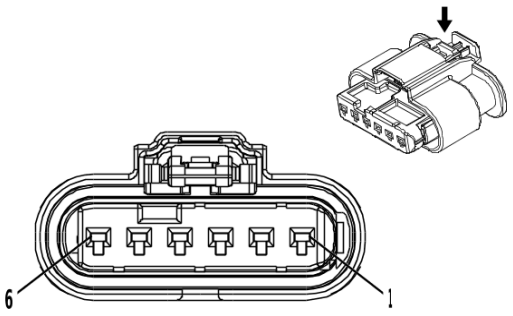
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B195A Nitrogen Oxides Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY	3672	NOx Sensor 2 Control	I	—
2	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
3	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
4	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
5	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
6	1	BK	150	Ground 1	I	—

B195B Nitrogen Oxides Sensor 2



4455148

Connector Part Information

Harness Type: Chassis
OEM Connector: 33226735
Service Connector: 19368561
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

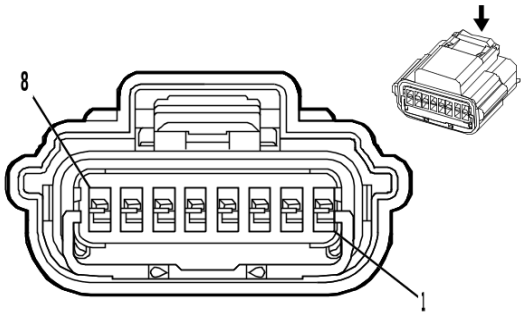
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B195B Nitrogen Oxides Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY	3672	NOx Sensor 2 Control	I	—
2	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
6	1	BK	150	Ground 1	I	—

B218L Side Object Sensor Module - Left (UFT)



2581486

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 15543347
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 0.64 Series, Sealed (BK)

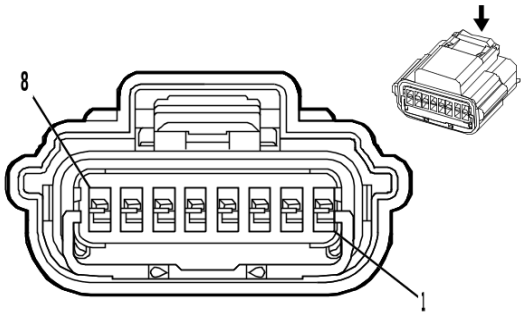
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B218L Side Object Sensor Module - Left (UFT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	GY/YE	5853	Driver Side Side Object Detection LED Signal 1	I	—
5	0.5	RD/L-GN	3140	Secondary Fused Battery Positive Voltage 31	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	L-GN/BK	5060	Low Speed GMLAN Serial Data	I	—
8	0.5	BK	2150	Ground 21	I	—

B218R Side Object Sensor Module - Right (UFT)



2581486

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 15543346
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 0.64 Series, Sealed (BK)

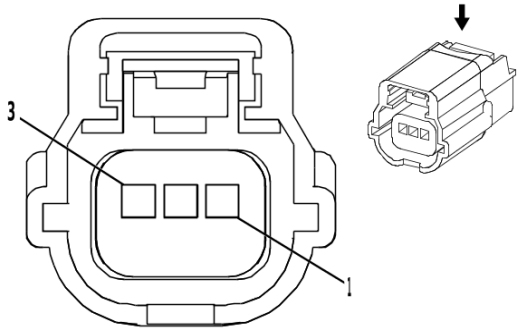
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B218R Side Object Sensor Module - Right (UFT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK	2150	Ground 21	I	—
4	0.5	GY	5861	Passenger Side Object Detection LED Signal 1	I	—
5	0.5	RD/L-GN	3140	Secondary Fused Battery Positive Voltage 31	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	L-GN/BK	5060	Low Speed GMLAN Serial Data	I	—
8	0.5	BK	2150	Ground 21	I	—

B306E Parking Assist Sensor - Rear Left Outer (UD7)



1664596

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

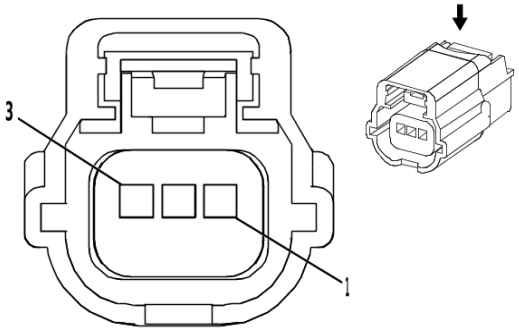
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B306E Parking Assist Sensor - Rear Left Outer (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Supply Voltage	I	—
2	0.5	GY	2379	Object Sensor Low Reference	I	—
	0.5	GY/GY	2379	Object Sensor Low Reference	I	—
3	0.5	YE	2375	Left Rear Outer Parking Assist Sensor Signal	I	—

B306F Parking Assist Sensor - Rear Left Middle (UD7)



1664596

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

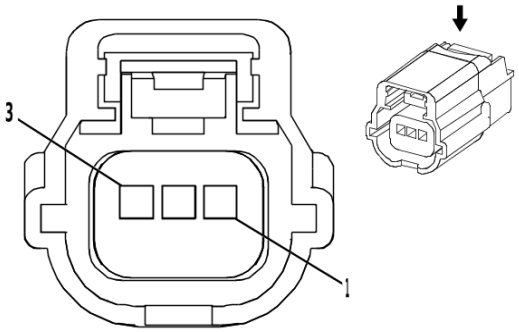
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B306F Parking Assist Sensor - Rear Left Middle (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Supply Voltage	I	—
2	0.5	GY	2379	Object Sensor Low Reference	I	—
	0.5	GY/GY	2379	Object Sensor Low Reference	I	—
3	0.5	OG	2376	Left Rear Middle Parking Assist Sensor Signal	I	—

B306G Parking Assist Sensor - Rear Right Middle (UD7)



1664596

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

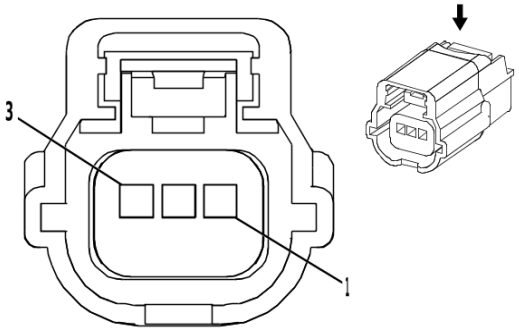
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B306G Parking Assist Sensor - Rear Right Middle (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Supply Voltage	I	—
2	0.5	GY	2379	Object Sensor Low Reference	I	—
	0.5	GY/GY	2379	Object Sensor Low Reference	I	—
3	0.5	GN	2377	Right Rear Middle Parking Assist Sensor Signal	I	—

B306H Parking Assist Sensor - Rear Right Outer (UD7)



1664596

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738

Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B306H Parking Assist Sensor - Rear Right Outer (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Supply Voltage	I	—
2	0.5	GY	2379	Object Sensor Low Reference	I	—
	0.5	GY/GY	2379	Object Sensor Low Reference	I	—
3	0.5	PU	2378	Right Rear Outer Parking Assist Sensor Signal	I	—

C1 Battery ((-))

—

Connector Part Information

Harness Type: Battery Cable - Negative
OEM Connector: 12129465
Service Connector: Service by Harness - See Part Catalog
Description: Battery Cable

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	Not Available	No Tool Required

C1 Battery ((-))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	BK	50	Ground	I	—
	32	BK	50	Ground		—

C1 Battery ((+))

—

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12129465
Service Connector: Service by Harness - See Part Catalog
Description: Battery Cable

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	Not Available	No Tool Required

C1 Battery ((+))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	-(KW5/KW4)
	8	RD/BK	1	Unfused Battery Positive Voltage	I	KW5/KG4

C1B Battery - Auxiliary (-LWN)

—

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12146464
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

C1B Battery - Auxiliary (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

C1B Battery - Auxiliary (LWN)

—

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12129465
Service Connector: Service by Harness - See Part Catalog
Description: Battery Cable

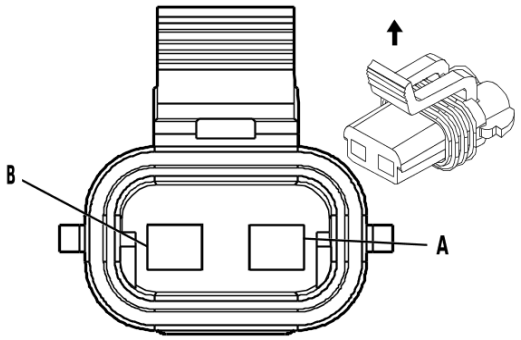
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	Not Available	No Tool Required

C1B Battery - Auxiliary (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

E2LF Side Marker Lamp - Left Front



68721

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

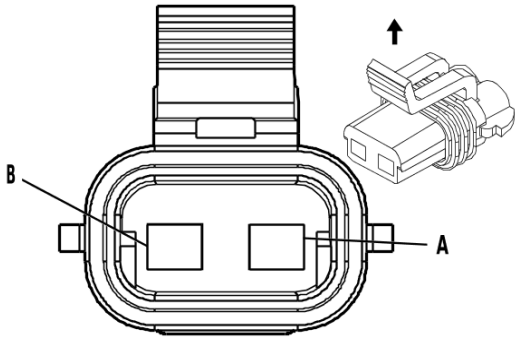
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E2LF Side Marker Lamp - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN	2309	Front Park Lamp Control	I	—
B	0.5	BK	250	Ground 2	I	—

E2RF Side Marker Lamp - Right Front



68721

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

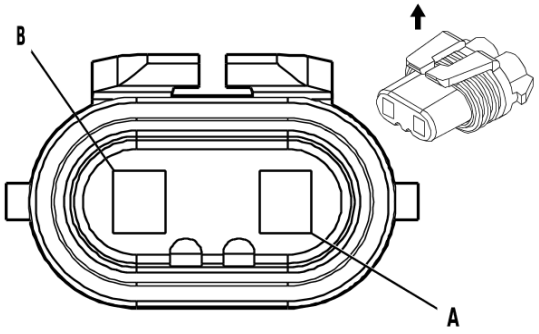
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E2RF Side Marker Lamp - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN	2309	Front Park Lamp Control	I	—
B	0.5	BK	650	Ground 6	I	—

E4E Headlamp - Left High Beam



684797

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059183

Service Connector: 12101898
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

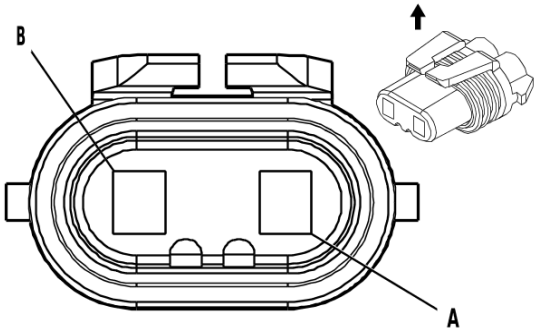
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4E Headlamp - Left High Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH	711	Left Headlamp High Beam Control	I	—
B	0.75	BK	250	Ground 2	I	—

E4F Headlamp - Right High Beam



684797

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059183
Service Connector: 12101898
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

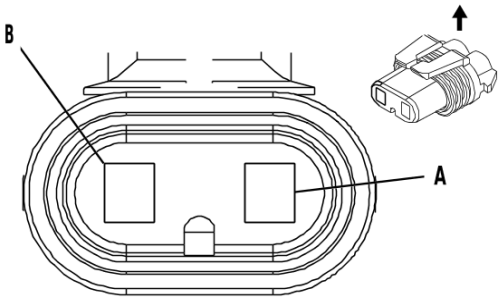
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4F Headlamp - Right High Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH	311	Right Headlamp High Beam Control	I	—
B	0.75	BK	650	Ground 6	I	—

E4G Headlamp - Left Low Beam



684796

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059181
Service Connector: 19301866
Description: 2-Way F 280 Metri-Pack Series, Sealed (GY)

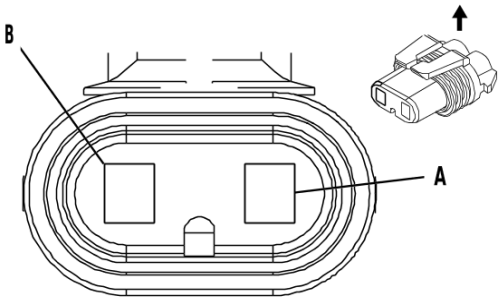
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4G Headlamp - Left Low Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	YE	712	Left Headlamp Low Beam Control	I	—
B	0.75	BK	250	Ground 2	I	—
	0.8	BK	250	Ground 2	I	—

E4H Headlamp - Right Low Beam



684796

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059181
Service Connector: 19301866
Description: 2-Way F 280 Metri-Pack Series, Sealed (GY)

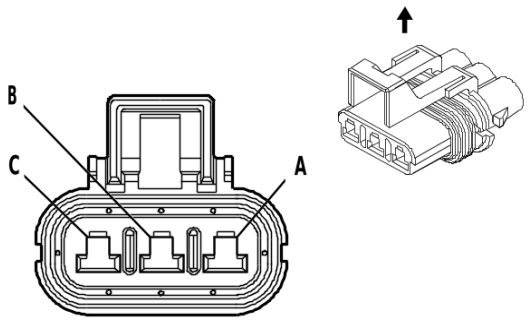
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4H Headlamp - Right Low Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BN/WH	312	Right Headlamp Low Beam Control	I	—
	0.75	YE	312	Right Headlamp Low Beam Control	I	—
B	0.75	BK	650	Ground 6	I	—
	0.8	BK	650	Ground 6	I	—

E4N Park/Turn Signal Lamp - Left



847206

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12040977
Service Connector: 12085492
Description: 3-Way F 280 Metri-Pack Series, Sealed (BK)

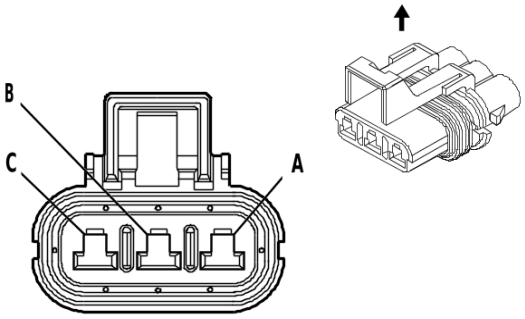
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4N Park/Turn Signal Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
	0.8	BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
B	0.5	BN	2309	Front Park Lamp Control	I	—
	0.5	GY/BN	2309	Front Park Lamp Control	I	—
C	0.5	BK	250	Ground 2	I	—

E4P Park/Turn Signal Lamp - Right



847206

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12040977
Service Connector: 12085492
Description: 3-Way F 280 Metri-Pack Series, Sealed (BK)

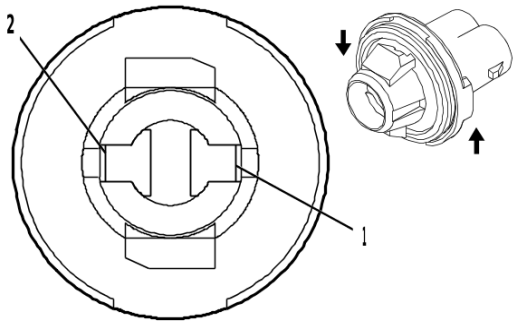
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4P Park/Turn Signal Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU/WH	1315	Right Front Turn Signal Lamp Control	I	—
B	0.5	BN	2309	Front Park Lamp Control	I	—
C	0.5	BK	650	Ground 6	I	—

E7 License Plate Lamp



5153536

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 15324946
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Lamp Socket Wedge Base, Type W-2 (D-GY)

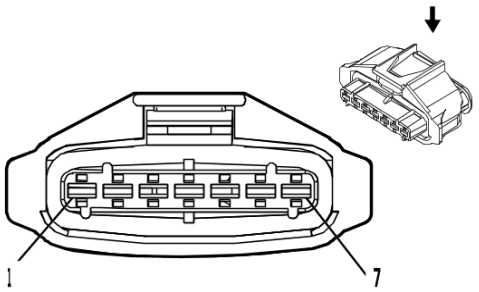
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

E7 License Plate Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	2509	Left Rear Park Lamp Control	I	—
2	0.5	BK	1050	Ground 10	I	—

E11A Fuel Heater/Water in Fuel Sensor



2537256

Connector Part Information

Harness Type: Chassis
OEM Connector: 10774827
Service Connector: 19354080
Description: 7-Way F 2.8 Junior Power Timer Series, Sealed (BK)

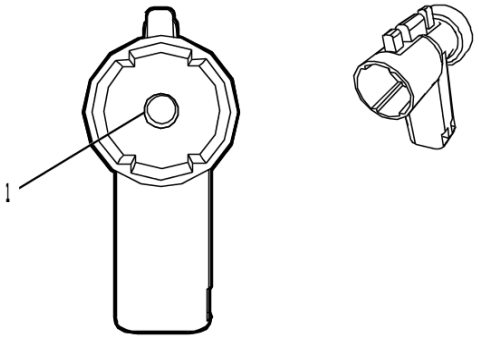
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

E11A Fuel Heater/Water in Fuel Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	7073	Fuel Temperature Sensor 1 Low Reference	I	—
2	0.5	BN/GY	7072	Fuel Temperature Sensor 1 Signal	I	—
3	0.5	D-BU/YE	6861	Water In Fuel Sensor Signal	I	—
4	0.75	BK	2150	Ground 21	I	—
5	0.75	VT/GY	2739	Run/Crank Ignition 1 Voltage 27	I	—
6	2.5	VT/L-GN	355	—	I	—
7	2.5	BK	2150	Ground 21	I	—

E12A Glow Plug 1



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F (BK)

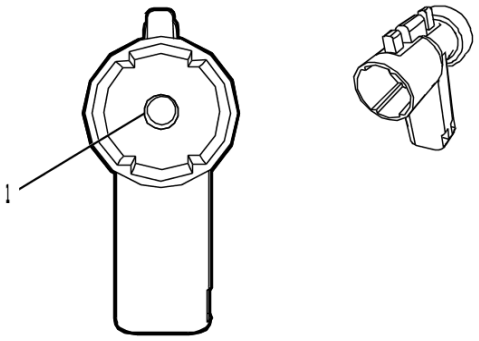
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

E12A Glow Plug 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/BK	—	—	I	—

E12B Glow Plug 2



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F (BK)

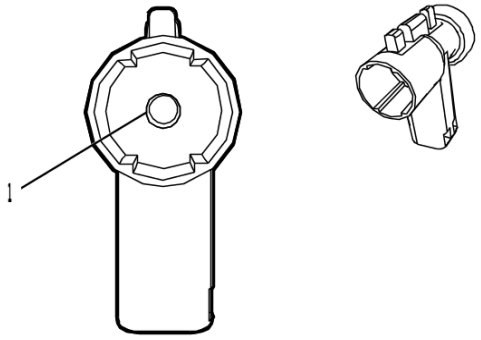
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

E12B Glow Plug 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	RD/BK	—	—	I	—

E12C Glow Plug 3



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F (BK)

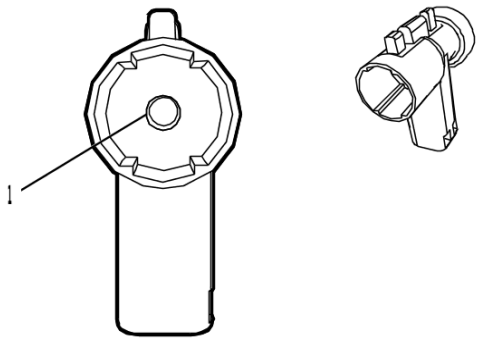
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

E12C Glow Plug 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	WH/BK	—	—	I	—

E12D Glow Plug 4



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F (BK)

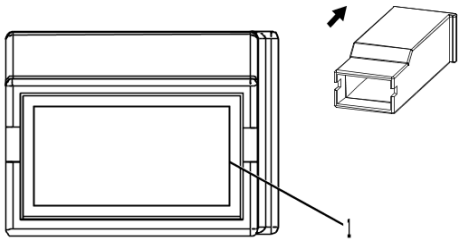
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

E12D Glow Plug 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	—	—	I	—

E18L Rear Defogger Grid - Left X1



2500421

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

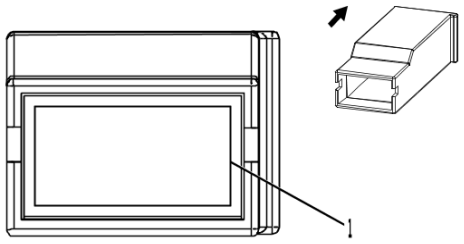
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required

E18L Rear Defogger Grid - Left X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	PU	293	Rear Defogger Grid Control	I	—

E18L Rear Defogger Grid - Left X2



2500421

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

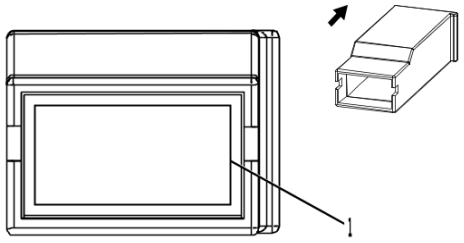
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required

E18L Rear Defogger Grid - Left X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	BK	850	Ground 8	I	—

E18R Rear Defogger Grid - Right X1



2500421

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

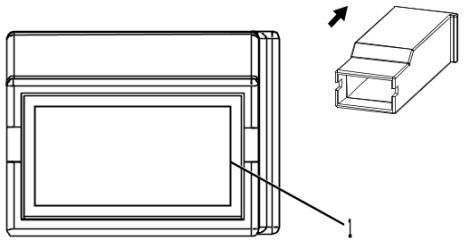
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required

E18R Rear Defogger Grid - Right X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	PU	293	Rear Defogger Grid Control	I	—

E18R Rear Defogger Grid - Right X2



2500421

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

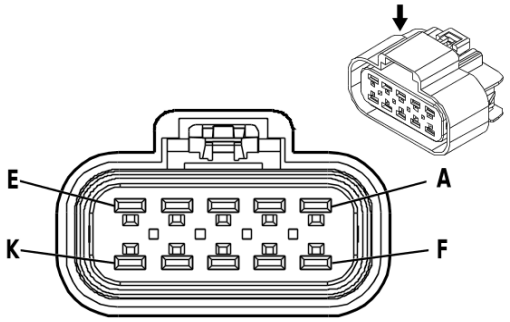
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required

E18R Rear Defogger Grid - Right X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	BK	850	Ground 8	I	—

E19 Coolant Heater



655815

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326660
Service Connector: 88986262
Description: 10-Way F 280 GT Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576407	J-35616-4A (PU)	J-38125-215A
II	13580824	J-35616-4A (PU)	J-38125-215A
III	13580824	J-35616-4A (PU)	J-38125-553

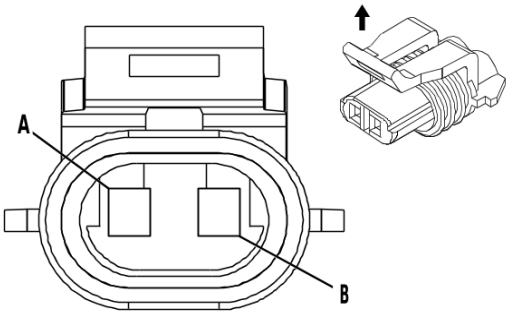
E19 Coolant Heater

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	I	—
B	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	III	—
C	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	III	—
D	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	III	—
E	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	III	—
F	0.8	D-BU/ L-GN	7077	Auxiliary Heater Fuel Pump Control	II	—
G	—	—	—	Not Occupied	—	—
H	2	BK	150	Ground 1	I	—
J	0.5	WH/BU	5986	Serial Data Communication Enable	III	—

E19 Coolant Heater (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
K	—	—	—	Not Occupied	—	—

E22 Underhood Lamp



537107

Connector Part Information

Harness Type: Underhood Lamp
OEM Connector: 12052644
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

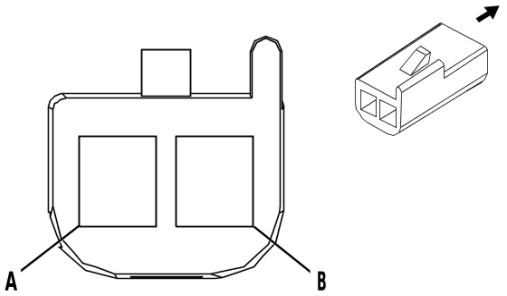
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E22 Underhood Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	1732	Control Module 12V Reference 3	I	—
B	0.5	BK	1250	Ground 12	I	—

E36AC Dome Lamp - Left Roof Rail



82383

Connector Part Information

Harness Type: Body
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

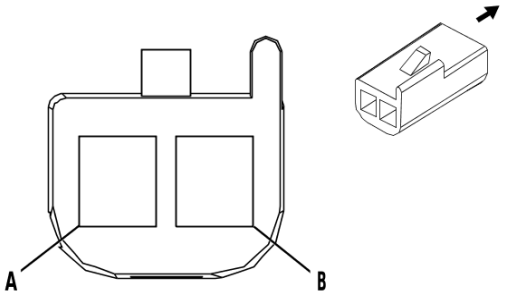
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E36AC Dome Lamp - Left Roof Rail

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground 8	I	—

E36AD Dome Lamp - Right Roof Rail



82383

Connector Part Information

Harness Type: Body
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

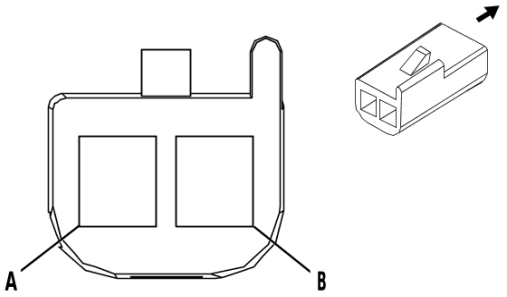
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E36AD Dome Lamp - Right Roof Rail

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground 8	I	—

E36AH Dome Lamp



82383

Connector Part Information

Harness Type: Body
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

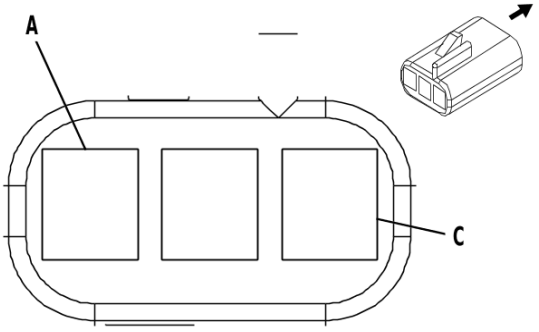
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E36AH Dome Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground 8	I	—

E37F Dome/Reading Lamps - Front



333035

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047781
Service Connector: 13586139
Description: 3-Way F 150 Metri-Pack Series (BK)

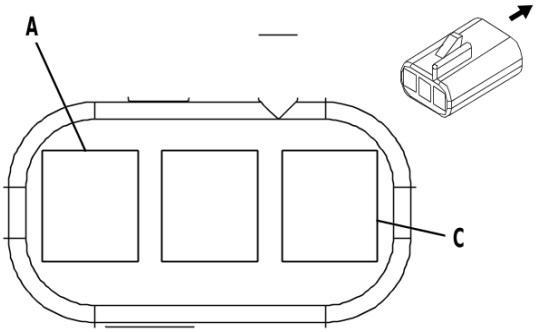
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E37F Dome/Reading Lamps - Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU/WH	149	Courtesy Lamp Control	I	—
B	1 0.8	BK BK	1850 1850	Ground 18 Ground 18	I I	((C69/DH6)-YF1)/ -YF1) (-DH6-C69)/(YF1)
C	0.8	OG	1732	Control Module 12V Reference 3	I	—

E37M Dome/Reading Lamps - Middle



333035

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047781
Service Connector: 13586139
Description: 3-Way F 150 Metri-Pack Series (BK)

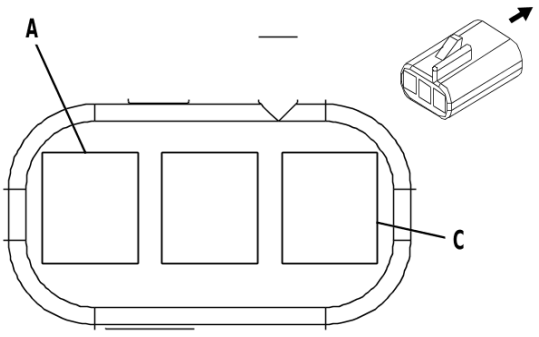
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E37M Dome/Reading Lamps - Middle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.5	BK	1050	Ground 10	I	—
C	0.8	OG	1732	Control Module 12V Reference 3	I	—

E37R Dome/Reading Lamps - Rear



333035

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047781
Service Connector: 13586139
Description: 3-Way F 150 Metri-Pack Series (BK)

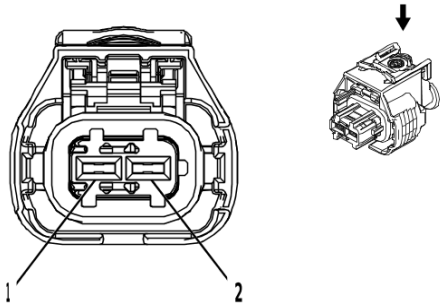
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E37R Dome/Reading Lamps - Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.5	BK	1050	Ground 10	I	—
C	0.8	OG	1732	Control Module 12V Reference 3	I	—

E45 Positive Crankcase Ventilation Heater



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

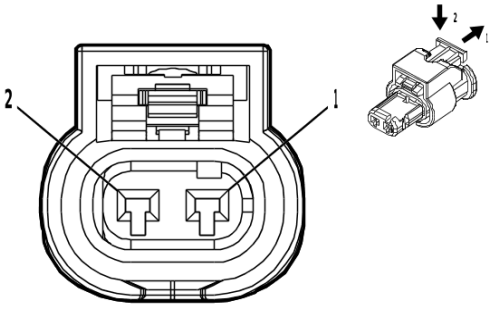
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

E45 Positive Crankcase Ventilation Heater

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BU	1497	Positive Crankcase Ventilation Heater Control	I	—
2	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—

F101 Passenger Instrument Panel Air Bag



2698576

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13863037

Service Connector: 19369032
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

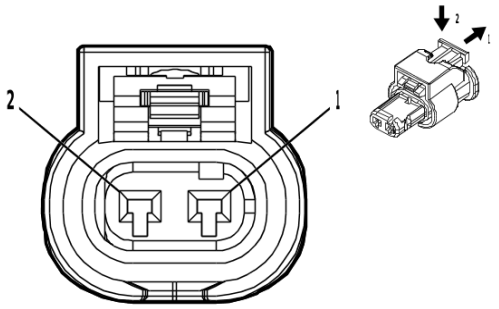
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

F101 Passenger Instrument Panel Air Bag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	I	—
2	0.5	OG	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	I	—

F105LF Roof Rail Air Bag - Left Front



2698576

Connector Part Information

Harness Type: Body
OEM Connector: 13863037
Service Connector: 19369032
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

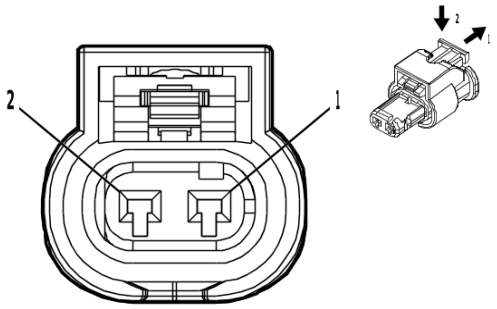
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

F105LF Roof Rail Air Bag - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	PK	5020	Left Front Roof Rail Air Bag Low Control	I	—
2	0.5	PU/WH	5019	Left Front Roof Rail Air Bag High Control	I	—

F105RF Roof Rail Air Bag - Right Front



2698576

Connector Part Information

Harness Type: Body
OEM Connector: 13863037
Service Connector: 19369032
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

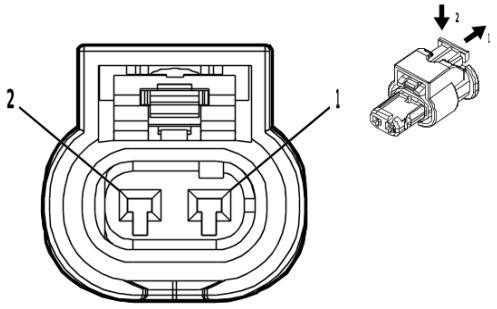
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

F105RF Roof Rail Air Bag - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BK	5022	Right Front Roof Rail Air Bag Low Control	I	—
2	0.5	YE/BK	5021	Right Front Roof Rail Air Bag High Control	I	—

F105RR Roof Rail Air Bag - Right Rear



2698576

Connector Part Information

Harness Type: Body
OEM Connector: 13863037
Service Connector: 19369032
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

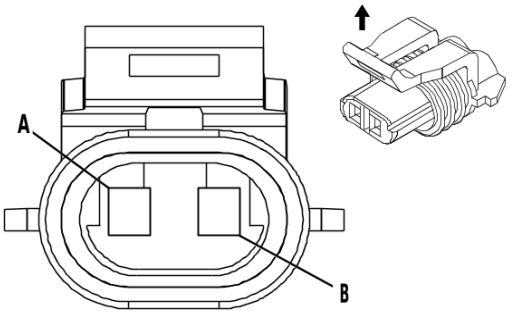
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

F105RR Roof Rail Air Bag - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	TN/BK	7016	Right Rear Roof Rail Air Bag Low Control	I	—
2	0.5	L-BU	7015	Right Rear Roof Rail Air Bag High Control	I	—

G7 Coolant Heater Fuel Pump



537107

Connector Part Information

Harness Type: Chassis
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

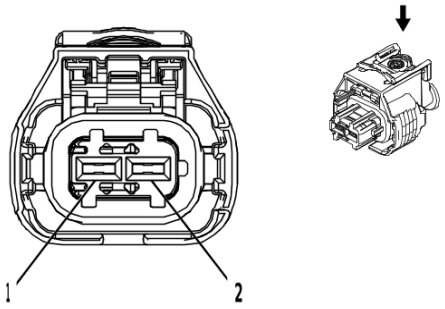
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

G7 Coolant Heater Fuel Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/ L-GN	7077	Auxiliary Heater Fuel Pump Control	I	—
B	0.8	BK	150	Ground 1	I	—

G13 Generator X1



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

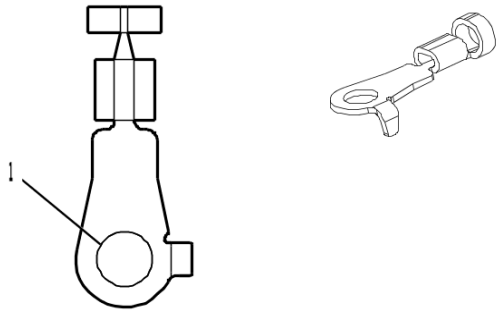
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

G13 Generator X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/WH	225	Generator Turn On Signal	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X2 (L8T+KG4)



4833656

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 15544794
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

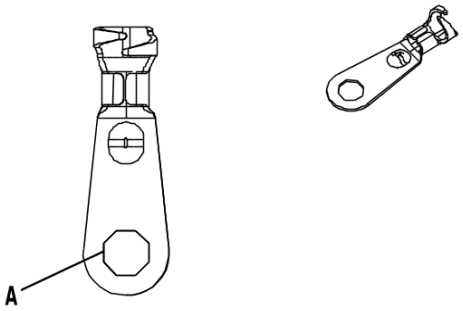
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

G13 Generator X2 (L8T+KG4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	25	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (L8T+KW5)



3214043

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 33257772
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

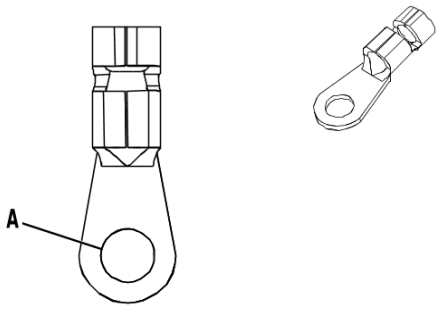
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

G13 Generator X2 (L8T+KW5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (LV1+K68)



2268698

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12129598
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

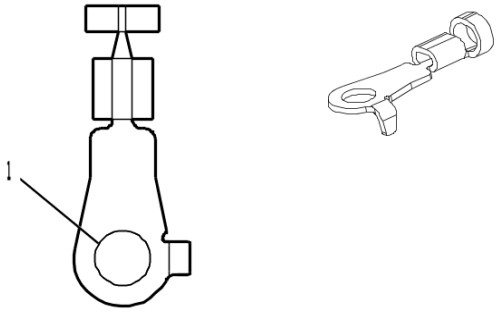
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

G13 Generator X2 (LV1+K68)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (LV1+KW5)



4833656

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 15544794
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

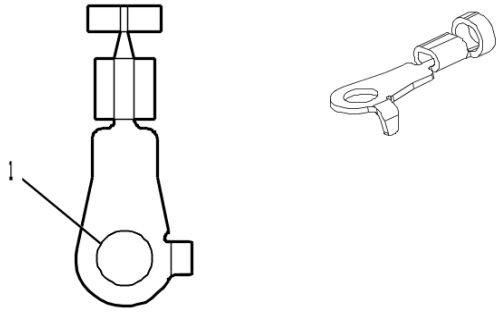
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

G13 Generator X2 (LV1+KW5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	25	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (LWN)



4833656

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 15544794
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

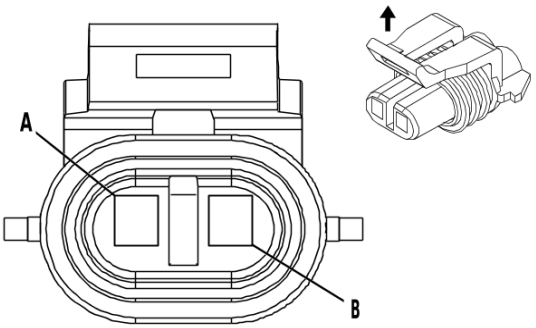
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

G13 Generator X2 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	25	RD	1	Unfused Battery Positive Voltage	I	—

G24 Windshield Washer Pump



635009

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series (BK)

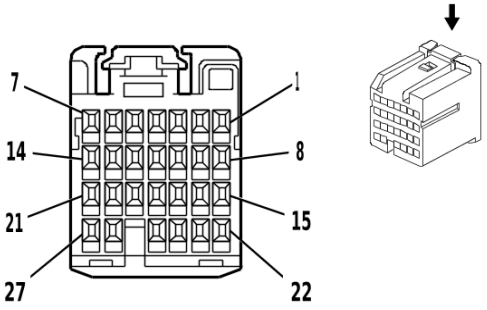
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

G24 Windshield Washer Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	228	Windshield Washer Pump Control	I	—
B	0.5	BK	350	Ground 3	I	—

K9 Body Control Module X1



1664495

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482789
Service Connector: 88988838
Description: 27-Way F HIT Series (L-GN)

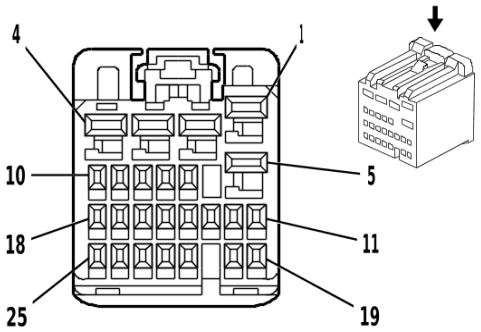
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A
II	13578820	J-35616-64B (LT BU)	J-38125-12A

K9 Body Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	PK	1020	Off/Run/Crank Ignition Voltage 2	I	—
3	0.35	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
4	0.35	WH	530	Off/Run/Crank Ignition Voltage	I	—
5	0.35	L-GN	1715	Windshield Wiper Switch High Signal	I	—
6	0.35	L-GN	6818	Steering Wheel Controls Signal 1	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	TN/BK	6009	Windshield Wiper Switch Low Reference	I	—
9	0.35	L-BU	1714	Windshield Wiper Switch Low Signal	I	—
10 - 13	—	—	—	Not Occupied	—	—
14	0.35	PK	3	Run/Crank Ignition 1 Voltage	I	—
15	0.35	D-GN	663	Hazard Warning Switch Left Turn Signal	I	—
16	0.35	TN	664	Hazard Warning Switch Right Turn Signal	I	—
17	0.35	PK	1444	Steering Wheel Controls 12 Volt Reference	I	—
18	0.35	YE	525	High Beam Select Switch Low Beam Signal	I	—
19	0.35	WH	111	Hazard Warning Switch Signal	I	—
20	0.35	PU	5526	Tap Up/Down Switch Signal	I	—
21	0.35	BN	4	Accessory Voltage	I	—
22	—	—	—	Not Occupied	—	—
23	0.35	L-BU	1788	Traction Control Switch Signal 1	I	—
24	0.35	PK	94	Windshield Washer Switch Signal	I	—
25	0.35	YE	307	Headlamp Switch Flash Signal	I	—
26	0.5	TN/WH	816	Brake Transmission Shift Interlock Solenoid Actuator Control	II	—
27	—	—	—	Not Occupied	—	—

K9 Body Control Module X2



1664496

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482790
Service Connector: 88988839
Description: 25-Way F HIT Series (NA)

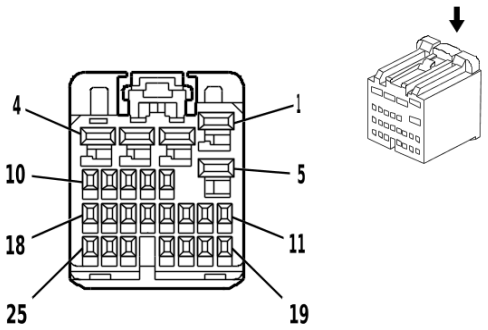
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A
II	13578820	J-35616-64B (LT BU)	J-38125-12A
III	13587507	J-35616-35 (VT)	J-38125-12A

K9 Body Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	OG	1732	Control Module 12V Reference 3	III	—
2	0.5	RD/WH	2540	Secondary Fused Battery Positive Voltage 25	III	—
3	0.5	BN/WH	230	Instrument Panel Lamp Dimming Control	III	—
4	—	—	—	Not Occupied	—	—
5	0.8	D-BU/WH	149	Courtesy Lamp Control	III	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.35	L-BU	13	Headlamp Switch Park Lamp Signal	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.35	WH	278	Ambient Light Sensor Signal	I	—
12	0.35	WH	103	Headlamp Switch On Signal	I	—
13 - 16	—	—	—	Not Occupied	—	—
17	0.35	D-GN	306	Headlamp Switch Off Signal	I	—
18	0.35	D-BU/WH	149	Courtesy Lamp Control	I	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	D-BU	6727	Vehicle Stability Control Switch Signal	II	—
22	0.35	D-BU	38	Backup Lamp Relay Control	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.35	PU	328	Dome/Reading Lamp Disable Switch Signal	I	—

K9 Body Control Module X3



1664498

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482791
Service Connector: 88988840
Description: 25-Way F HIT Series (L-BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A
II	13578820	J-35616-64B (LT BU)	J-38125-12A
III	13587507	J-35616-35 (VT)	J-38125-12A

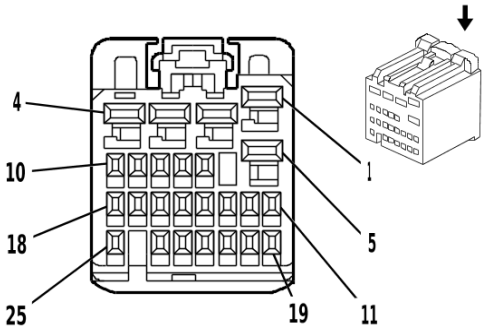
K9 Body Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	BK/WH	351	Ground 3	III	—
2	0.8	RD/WH	2140	Secondary Fused Battery Positive Voltage 21	III	—
3	0.5	RD/WH	3840	Secondary Fused Battery Positive Voltage 38	III	—
4	—	—	—	Not Occupied	—	—
5	0.8	BK/WH	351	Ground 3	III	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
9	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
10	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
11	0.35	D-GN	44	Instrument Panel Lamp Dimmer Switch Signal	I	—
12	0.35	OG/WH	812	Dimmer Switch High Reference	I	—
13	0.5	TN	5380	Brake Position Sensor Signal	II	—
14	0.5	BN/WH	5382	Brake Position Sensor Low Reference	II	—
15	0.5	GY	5381	Brake Position Sensor 5V Reference	II	—
16	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
17	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
18	0.5	YE	6817	LED Backlight Dimming Control 1	II	—
19	0.5	WH/BU	5986	Serial Data Communication Enable	II	—
20 - 21	—	—	—	Not Occupied	—	—
22	0.35	D-GN/WH	7158	Cruise Control Indicator Dimming Signal	I	—

K9 Body Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
23 - 24	—	—	—	Not Occupied	—	—
25	0.35	WH	6816	Indicator Dimming Control	I	—

K9 Body Control Module X4



1664499

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482792
Service Connector: 88988841
Description: 25-Way F HIT Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A
II	13578820	J-35616-64B (LT BU)	J-38125-12A
III	13587507	J-35616-35 (VT)	J-38125-12A

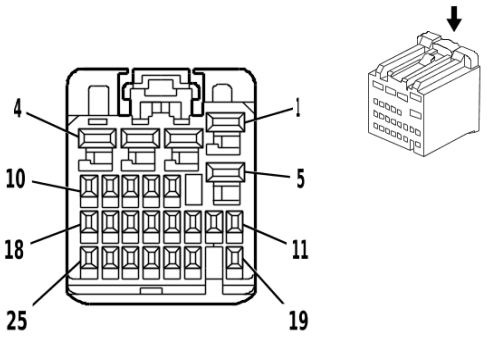
K9 Body Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	RD/WH	2740	Secondary Fused Battery Positive Voltage 27	III	—
2	0.8	RD/WH	3040	Secondary Fused Battery Positive Voltage 30	III	—
3	0.8	RD/WH	2940	Secondary Fused Battery Positive Voltage 29	III	—
4	0.8	RD/WH	2240	Secondary Fused Battery Positive Voltage 22	III	—
5	0.8	D-BU/WH	1315	Right Front Turn Signal Lamp Control	III	—
6	0.35	D-GN	6134	Body Control Module LIN Bus 3	I	—
7	0.35	YE	196	Windshield Wiper Motor Park Switch Signal	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	BK/WH	451	Ground 4	II	—
10	0.5	RD/WH	2840	Secondary Fused Battery Positive Voltage 28	II	—
11	—	—	—	Not Occupied	—	—
12	0.35	YE	5187	Right Trailer Turn Signal Lamp Control	I	—
13	0.35	OG	5186	Left Trailer Turn Signal Lamp Control	I	—

K9 Body Control Module X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
14	—	—	—	Not Occupied	—	—
15	0.35	OG	2268	Windshield Washer Relay Control	I	—
16	0.35	TN/WH	1969	Headlamp High Beam Relay Control	I	—
17	0.5	PK/BK	109	Hood Ajar Switch Signal	II	—
18	—	—	—	Not Occupied	—	—
19	0.5	D-BU	5985	Accessory Wake-Up Serial Data	II	—
20	—	—	—	Not Occupied	—	—
21	0.35	YE	5199	Run/Crank Relay Coil Control	I	—
22	—	—	—	Not Occupied	—	—
23	0.35	PU	544	DRL Relay Control	I	—
24 - 25	—	—	—	Not Occupied	—	—

K9 Body Control Module X5



1664500

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15480179
Service Connector: 88988837
Description: 25-Way F HIT Series (BN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A
II	13578820	J-35616-64B (LT BU)	J-38125-12A
III	13587507	J-35616-35 (VT)	J-38125-12A

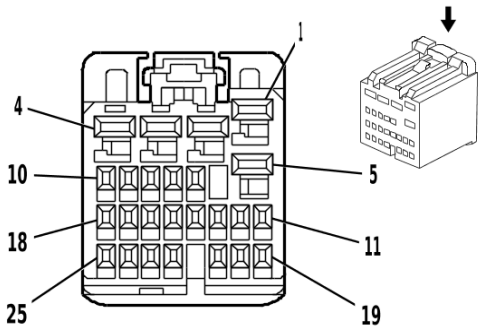
K9 Body Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE	618	Left Rear Turn Signal Lamp Control	III	—
2	1	D-GN	619	Right Rear Turn Signal Lamp Control	III	—
3	—	—	—	Not Occupied	—	—
4	0.8	L-BU/WH	1314	Left Front Turn Signal Lamp Control	III	—

K9 Body Control Module X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5	0.5	WH	5065	Stop Lamp Relay Coil Control	III	—
6	0.35	WH/BU	6311	Cruise/ETC/TCC Brake Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	PK	5076	Current Sensor Voltage Reference	II	—
9	0.5	WH	5075	Current Sensor Signal	II	—
10	0.5	BN	5077	Current Sensor Low Reference	II	—
11	0.35	YE	43	Accessory Voltage 0	I	—
12	—	—	—	Not Occupied	—	—
13	0.35	OG	300	Run Ignition 3 Voltage	I	—
14	0.5	L-GN	24	Backup Lamp Control	II	—
15	0.5	PU	5531	Hood Closed Switch Signal	II	—
16	0.35	L-BU	1134	Park Brake Switch Signal	I	—
17	—	—	—	Not Occupied	—	—
18	0.35	TN	28	Horn Relay Control	I	—
19	—	—	—	Not Occupied	—	—
20	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	I	—
21	0.35	TN	860	Windshield Wiper Switch High Signal	I	—
22	—	—	—	Not Occupied	—	—
23	0.35	PK/WH	1970	Headlamp Low Beam Relay Control 3	I	—
24	0.35	D-BU	45	Park Lamp Relay Control	I	—
25	—	—	—	Not Occupied	—	—

K9 Body Control Module X6



1664502

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482793
Service Connector: 88988842
Description: 25-Way F HIT Series (PK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A

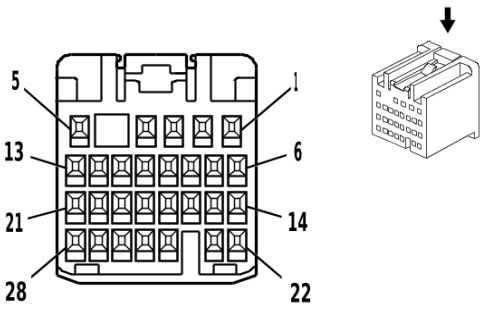
Terminal Part Information (cont'd)

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
II	13587507	J-35616-35 (VT)	J-38125-12A

K9 Body Control Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.8	L-BU	1320	Center High Mounted Stop Lamp Control 2	II	—
3 - 7	—	—	—	Not Occupied	—	—
8	0.35	TN/WH	746	Right Front Door Ajar Switch Signal	I	—
9	0.35	D-BU	245	Passenger Door Lock Switch Unlock Control	I	—
10	0.35	GY/BK	745	Left Front Door Ajar Switch Signal	I	—
11	—	—	—	Not Occupied	—	—
12	0.35	PK/BK	1303	Liftgate Ajar Switch Signal 1	I	—
13	—	—	—	Not Occupied	—	—
14	0.35	YE/BK	1181	Right Rear Door Open Switch Signal	I	—
15	—	—	—	Not Occupied	—	—
16	0.35	L-GN	1177	Right Front Door Open Switch Signal	I	—
17	—	—	—	Not Occupied	—	—
18	0.35	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
19 - 21	—	—	—	Not Occupied	—	—
22	0.35	L-GN	5926	Rear Body Opening Open Switch Signal	I	—
23 - 25	—	—	—	Not Occupied	—	—

K9 Body Control Module X7



1664505

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15466053
Service Connector: 88988806
Description: 28-Way F HIT Series (GY)

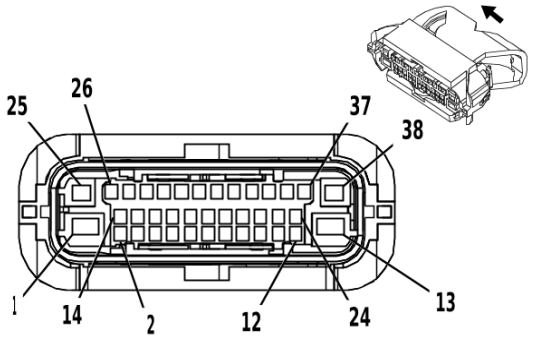
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578820	J-35616-64B (LT BU)	J-38125-12A

K9 Body Control Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	YE	356	Driver Door Lock Relay Unlock Control	I	—
3 - 5	—	—	—	Not Occupied	—	—
6	0.5	YE	356	Driver Door Lock Relay Unlock Control	I	—
7	0.5	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
10	—	—	—	Not Occupied	—	—
11	0.5	OG/BK	781	Driver Door Lock Switch Unlock Signal	I	—
12	0.5	PK/BK	780	Driver Door Lock Switch Lock Signal	I	—
13 - 22	—	—	—	Not Occupied	—	—
23	0.5	TN	126	Left Front Door Open Switch Signal	I	—
24	0.5	L-GN	66	A/C Request Signal	I	—
25 - 28	—	—	—	Not Occupied	—	—

K17 Electronic Brake Control Module



3638282

Connector Part Information

Harness Type: Chassis
OEM Connector: 13655518
Service Connector: 19303771
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK with BN Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301766	J-35616-14 (GN)	J-38125-215A
II	19368624	J-35616-35 (VT)	J-38125-212
III	84616649	J-35616-40 (BU)	J-38125-556

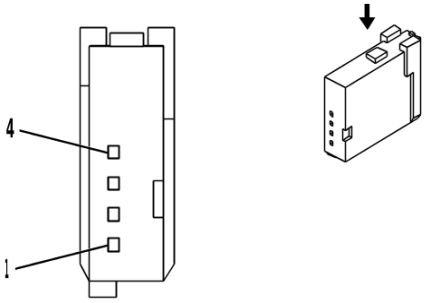
K17 Electronic Brake Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD/YE	442	Primary Fused Battery Positive Voltage 4	III	—

K17 Electronic Brake Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	—	—	—	Not Occupied	—	—
3	0.5	GY/YE	7128	Right Rear Wheel Speed Sensor Control	I	—
4	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	I	—
5	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
6	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
9	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
10	0.5	GY/BN	7065	Right Front Wheel Speed Sensor Control	I	—
11	0.5	YE	872	Right Front Wheel Speed Sensor Signal	I	—
12	—	—	—	Not Occupied	—	—
13	5	BK	2150	Ground 21	III	—
14 - 16	—	—	—	Not Occupied	—	—
17	0.5	L-GN/BN	2087	Multi-axis Acceleration Sensor Supply Voltage	I	—
18 - 19	—	—	—	Not Occupied	—	—
20	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
21	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
22 - 24	—	—	—	Not Occupied	—	—
25	2.5	RD/VT	1640	Secondary Fused Battery Positive Voltage 16	II	—
26 - 27	—	—	—	Not Occupied	—	—
28	0.5	WH/BU	5986	Serial Data Communication Enable	I	—
29	0.5	GY/BK	7127	Left Rear Wheel Speed Sensor Control	I	—
30	0.5	D-BU	884	Left Rear Wheel Speed Sensor Signal	I	—
31 - 34	—	—	—	Not Occupied	—	—
35	0.5	GY/WH	7064	Left Front Wheel Speed Sensor Control	I	—
36	0.5	GY	830	Left Front Wheel Speed Sensor Signal	I	—
37	—	—	—	Not Occupied	—	—
38	2.5	BK	2150	Ground 21	II	—

K18 Compass Module



2831061

Connector Part Information

Harness Type: Headliner
OEM Connector: 13820711
Service Connector: 19300398
Description: 4-Way F 0.64 Series (BK)

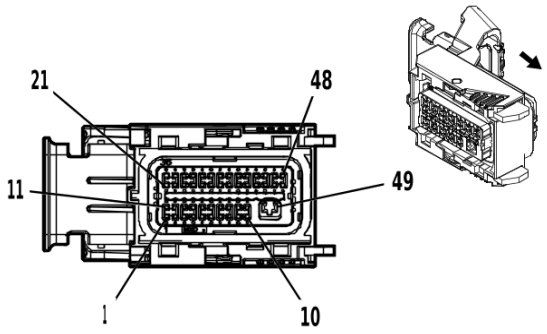
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

K18 Compass Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN	441	Run Ignition 3 Voltage 4	I	—
2	0.5	BK/WH	351	Ground 3	I	—
3	0.35	D-GN	6134	Body Control Module LIN Bus 3	I	—
4	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L8T)



4596458

Connector Part Information

Harness Type: Engine
OEM Connector: 33315785
Service Connector: 19368142
Description: 49-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333308	J-35616-35 (VT)	J-38125-215A
II	19354746	J-35616-64B (LT BU)	J-38125-215A

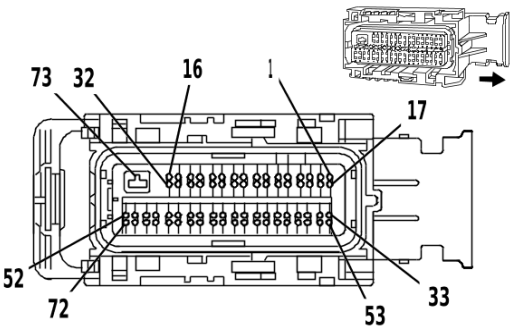
K20 Engine Control Module X1 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	II	—
2	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L8T) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
7	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
8	0.5	BN/WH	419	Check Engine Indicator Control	II	—
9	0.5	YE	5991	Powertrain Relay Coil Control	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	D-BU/GY	636	Ambient Air Temperature Sensor Signal	II	—
13	0.5	D-BU/BN	4498	High Speed GMLAN Serial Data [+] 7	II	—
14	0.5	WH/L-GN	5380	Brake Position Sensor Signal	II	—
15	—	—	—	Not Occupied	—	—
16	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	II	—
17	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
18	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	L-GN/BU	428	EVAP Purge Solenoid Valve Control	II	—
22	—	—	—	Not Occupied	—	—
23	0.5	BK/L-GN	580	Engine Control Sensors Low Reference 2	II	—
24	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	—
25 - 27	—	—	—	Not Occupied	—	—
28	0.5	BN/L-GN	1174	Oil Level Switch Signal	II	—
29	—	—	—	Not Occupied	—	—
30	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/GY	1039	Run/Crank Ignition 1 Voltage 10	II	—
33	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	II	—
34	0.5	RD/WH	140	Secondary Fused Battery Positive Voltage 1	II	—
35	—	—	—	Not Occupied	—	—
36	0.5	YE/BK	625	Starter Enable Relay Control	II	—
37	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	II	—
38	0.5	WH/RD	1164	Accelerator Pedal Position 5 Volt Reference 1	II	—
39	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
40	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	—
41	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	L-GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
45	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
46	—	—	—	Not Occupied	—	—
47	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage 4	II	—
48	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
49	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—

K20 Engine Control Module X2 (L8T)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15499466
Service Connector: 19333090
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (LT BU)	J-38125-215A
II	19368324	J-35616-35 (VT)	J-38125-11A

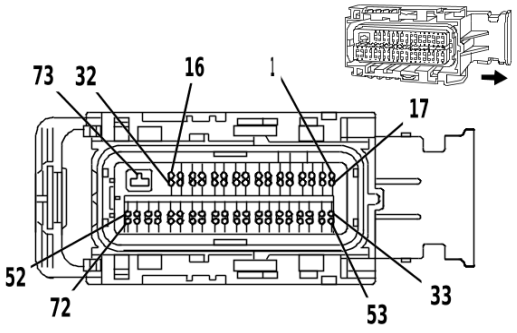
K20 Engine Control Module X2 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/YE	3212	HO2S Heater Low Control Bank 2 Sensor 1	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference 1	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	L-GN/WH	4622	Engine Control Module LIN Bus 2	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	HO2S High Signal Bank 1 Sensor 1	I	—
11	0.5	WH/BK	3111	HO2S Low Signal Bank 1 Sensor 1 (3)	I	—
12	0.5	YE/BU	2124	Ignition Control 4	I	—
13	0.5	BN/BU	2126	Ignition Control 6	I	—
14 - 15	—	—	—	Not Occupied	—	—
16	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
17	0.5	GY/WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	I	—
18 - 25	—	—	—	Not Occupied	—	—
26	0.5	VT/WH	3210	HO2S High Signal Bank 2 Sensor 1	I	—
27	0.5	YE/WH	3211	HO2S Low Signal Bank 2 Sensor 1	I	—
28	0.5	L-GN/BU	2123	Ignition Control 3	I	—
29	0.5	D-BU/GY	2125	Ignition Control 5	I	—
30	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
31 - 32	—	—	—	Not Occupied	—	—
33	0.5	WH/BN	3223	HO2S Heater Low Control Bank 2 Sensor 2	I	—

K20 Engine Control Module X2 (L8T) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
34	—	—	—	Not Occupied	—	—
35	0.5	D-BU	179	Engine Oil Pump Control	I	—
36	—	—	—	Not Occupied	—	—
37	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
38	—	—	—	Not Occupied	—	—
39	0.5	WH/RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—
40 - 45	—	—	—	Not Occupied	—	—
46	0.5	YE/BU	3221	HO2S Low Signal Bank 2 Sensor 2	I	—
47	0.5	VT/L-GN	3220	HO2S High Signal Bank 2 Sensor 2	I	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.75	BK/GY	2303	Knock Sensor 2 Low Reference	I	—
51	0.75	BK/YE	1716	Knock Sensor 1 Low Reference	I	—
52	0.5	BN/WH	582	Throttle Actuator Close Control	I	—
53	0.5	GY/WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	I	—
54 - 58	—	—	—	Not Occupied	—	—
59	0.5	D-BU/RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
60 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH/YE	3121	HO2S Low Signal Bank 1 Sensor 2	I	—
67	0.5	VT/BU	3120	HO2S High Signal Bank 1 Sensor 2	I	—
68 - 69	—	—	—	Not Occupied	—	—
70	0.75	WH/GY	1876	Knock Sensor 2 Signal	I	—
71	0.75	VT/GY	496	Knock Sensor 1 Signal	I	—
72	0.5	YE	581	Throttle Actuator Open Control	I	—
73	3	BK/WH	1551	Ground 15	II	—

K20 Engine Control Module X3 (L8T)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15497996
Service Connector: 19333091
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (LT BU)	J-38125-215A
II	19368324	J-35616-35 (VT)	J-38125-11A

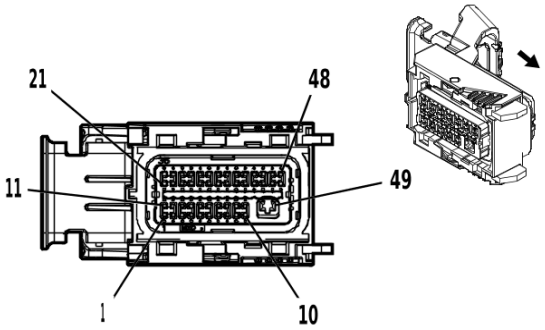
K20 Engine Control Module X3 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
5	0.5	VT/BN	5284	Intake Camshaft Position Actuator Solenoid Valve 1	I	—
6	0.5	VT/L-GN	4320	Selective Catalytic Reduction Power Module Wake-Up Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	YE/VT	5275	Intake Camshaft Position Sensor 1	I	—
9	0.5	GY/BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	I	—
10	0.5	L-GN	6271	Crankshaft Position Sensor Signal	I	—
11	—	—	—	Not Occupied	—	—
12	0.5	D-BU/WH	2122	Ignition Control 2	I	—
13	0.5	VT/WH	2128	Ignition Control 8	I	—
14	0.5	D-BU/WH	225	Generator Turn On Signal	I	—
15	—	—	—	Not Occupied	—	—
16	0.75	YE	7301	High Pressure Fuel Pump High Control	I	—
17 - 18	—	—	—	Not Occupied	—	—
19	0.5	BN/VT	6399	Replicated Transmission Output Speed Signal	I	—
20	—	—	—	Not Occupied	—	—
21	0.5	BK/BN	6753	Camshaft Position Actuator Solenoid Valve W Low Reference	I	—
22 - 23	—	—	—	Not Occupied	—	—
24	0.5	BK/L-GN	5301	Intake Camshaft Position Sensor Low Reference 1	I	—
25	0.5	VT/BU	6270	Crankshaft Position Sensor Voltage	I	—
26	0.5	BK/VT	6272	Crankshaft Position Sensor Low Reference	I	—
27	—	—	—	Not Occupied	—	—
28	0.5	L-GN/GY	2127	Ignition Control 7	I	—
29	0.5	D-BU/VT	2121	Ignition Control 1	I	—
30	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/BK	7300	High Pressure Fuel Pump Low Control	I	—
33 - 35	—	—	—	Not Occupied	—	—
36	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
37	0.5	BK/L-GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
38 - 39	—	—	—	Not Occupied	—	—
40	0.5	BN/BU	357	Oil Temperature Sensor Signal	I	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK/GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—
44	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage 12	I	—

K20 Engine Control Module X3 (L8T) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
45	0.75	L-GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	I	—
46	0.75	GY/BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	I	—
47	0.75	WH/L-GN	4805	Direct Fuel Injector High Voltage Control Cylinder 5	I	—
48	0.75	VT/L-GN	4806	Direct Fuel Injector High Voltage Control Cylinder 6	I	—
49	0.75	D-BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	I	—
50	0.75	YE/GY	4807	Direct Fuel Injector High Voltage Control Cylinder 7	I	—
51	0.75	GY	4808	Direct Fuel Injector High Voltage Control Cylinder 8	I	—
52	0.75	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	I	—
53 - 54	—	—	—	Not Occupied	—	—
55	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference 2	I	—
56	0.5	D-BU/WH	3630	Throttle Position Sensor SENT 1 Signal	I	—
57	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
58	0.5	L-GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
59 - 60	—	—	—	Not Occupied	—	—
61	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	I	—
62	—	—	—	Not Occupied	—	—
63	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—
64	0.5	GY	23	Generator Field Duty Cycle Signal	I	—
65	0.75	L-GN/GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	I	—
66	0.75	D-BU/WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	I	—
67	0.75	L-GN/WH	4905	Direct Fuel Injector High Voltage Supply Cylinder 5	I	—
68	0.75	VT/GY	4906	Direct Fuel Injector High Voltage Supply Cylinder 6	I	—
69	0.75	D-BU/GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	I	—
70	0.75	WH/YE	4907	Direct Fuel Injector High Voltage Supply Cylinder 7	I	—
71	0.75	GY/WH	4908	Direct Fuel Injector High Voltage Supply Cylinder 8	I	—
72	0.75	BN/WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	I	—
73	3	BK/WH	1551	Ground 15	II	—

K20 Engine Control Module X1 (LV1)



4596458

Connector Part Information

Harness Type: Engine
OEM Connector: 33315785
Service Connector: 19368142
Description: 49-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333308	J-35616-35 (VT)	J-38125-215A
II	19354746	J-35616-64B (LT BU)	J-38125-215A

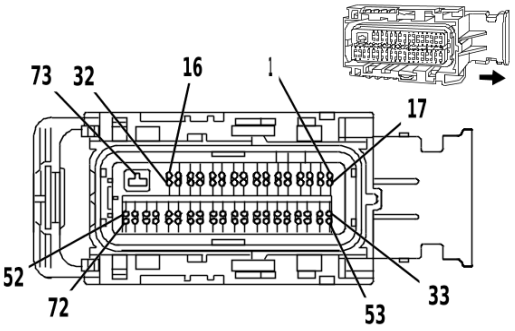
K20 Engine Control Module X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
7	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
8	0.5	BN/WH	419	Check Engine Indicator Control	II	—
9	0.5	YE	5991	Powertrain Relay Coil Control	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	D-BU/GY	636	Ambient Air Temperature Sensor Signal	II	—
13	0.5	D-BU/BN	4498	High Speed GMLAN Serial Data [+] 7	II	—
14	0.5	WH/L-GN	5380	Brake Position Sensor Signal	II	—
15 - 16	—	—	—	Not Occupied	—	—
17	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
18	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	L-GN/BU	428	EVAP Purge Solenoid Valve Control	II	—
22	—	—	—	Not Occupied	—	—
23	0.5	BK/L-GN	580	Engine Control Sensors Low Reference 2	II	—
24	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	—
25 - 26	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
27	0.5	L-GN/YE	3337	Transmission Internal Mode Switch Mode Control Y	II	—
28	0.5	BN/L-GN	1174	Oil Level Switch Signal	II	—
29	—	—	—	Not Occupied	—	—
30	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/GY	1039	Run/Crank Ignition 1 Voltage 10	II	—
33	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	II	—
34	0.5	RD/WH	140	Secondary Fused Battery Positive Voltage 1	II	—
35	—	—	—	Not Occupied	—	—
36	0.5	YE/BK	625	Starter Enable Relay Control	II	—
37	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	II	—
38	0.5	WH/RD	1164	Accelerator Pedal Position 5 Volt Reference 1	II	—
39	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
40	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	—
41	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	L-GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
45	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
46	—	—	—	Not Occupied	—	—
47	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage 4	II	—
48	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
49	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—

K20 Engine Control Module X2 (LV1)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15499466
Service Connector: 19333090
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578937	J-35616-35 (VT)	J-38125-11A
II	19354746	J-35616-64B (LT BU)	J-38125-215A

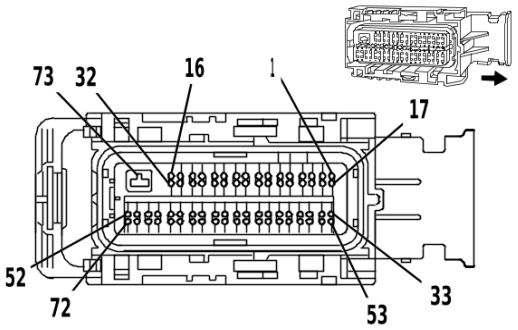
K20 Engine Control Module X2 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/YE	3212	HO2S Heater Low Control Bank 2 Sensor 1	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference 1	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	L-GN/WH	4622	Engine Control Module LIN Bus 2	II	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	HO2S High Signal Bank 1 Sensor 1	II	—
11	0.5	WH/BK	3111	HO2S Low Signal Bank 1 Sensor 1 (3)	II	—
12	—	—	—	Not Occupied	—	—
13	0.5	L-GN/BU	2123	Ignition Control 3	II	—
14 - 15	—	—	—	Not Occupied	—	—
16	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
17	0.5	GY/WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	II	—
18 - 25	—	—	—	Not Occupied	—	—
26	0.5	VT/WH	3210	HO2S High Signal Bank 2 Sensor 1	II	—
27	0.5	YE/WH	3211	HO2S Low Signal Bank 2 Sensor 1	II	—
28	—	—	—	Not Occupied	—	—
29	0.5	D-BU/WH	2122	Ignition Control 2	II	—
30	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	II	—
31 - 32	—	—	—	Not Occupied	—	—
33	0.5	WH/BN	3223	HO2S Heater Low Control Bank 2 Sensor 2	II	—
34 - 36	—	—	—	Not Occupied	—	—
37	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	II	—
38	—	—	—	Not Occupied	—	—
39	0.5	WH/RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	II	—
40 - 45	—	—	—	Not Occupied	—	—
46	0.5	YE/BU	3221	HO2S Low Signal Bank 2 Sensor 2	II	—
47	0.5	VT/L-GN	3220	HO2S High Signal Bank 2 Sensor 2	II	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.75	BK/GY	2303	Knock Sensor 2 Low Reference	II	—
51	0.75	BK/YE	1716	Knock Sensor 1 Low Reference	II	—
52	0.5	BN/WH	582	Throttle Actuator Close Control	II	—
53	0.5	GY/WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	II	—
54 - 58	—	—	—	Not Occupied	—	—
59	0.5	D-BU/RD	460	Engine Control Sensors 5 Volt Reference 1	II	—
60 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH/YE	3121	HO2S Low Signal Bank 1 Sensor 2	II	—
67	0.5	VT/BU	3120	HO2S High Signal Bank 1 Sensor 2	II	—
68 - 69	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
70	0.75	WH/GY	1876	Knock Sensor 2 Signal	II	—
71	0.75	VT/GY	496	Knock Sensor 1 Signal	II	—
72	0.5	YE	581	Throttle Actuator Open Control	II	—
73	3	BK/WH	1551	Ground 15	I	—

K20 Engine Control Module X3 (LV1)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15497996
Service Connector: 19333091
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578937	J-35616-35 (VT)	J-38125-11A
II	19354746	J-35616-64B (LT BU)	J-38125-215A

K20 Engine Control Module X3 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
5	0.5	VT/BN	5284	Intake Camshaft Position Actuator Solenoid Valve 1	II	—
6	0.5	VT/L-GN	4320	Selective Catalytic Reduction Power Module Wake-Up Signal	II	—
7	—	—	—	Not Occupied	—	—
8	0.5	YE/VT	5275	Intake Camshaft Position Sensor 1	II	—
9	0.5	GY/BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	II	—
10	0.5	L-GN	6271	Crankshaft Position Sensor Signal	II	—
11	—	—	—	Not Occupied	—	—
12	0.5	YE/BU	2124	Ignition Control 4	II	—
13	0.5	BN/BU	2126	Ignition Control 6	II	—

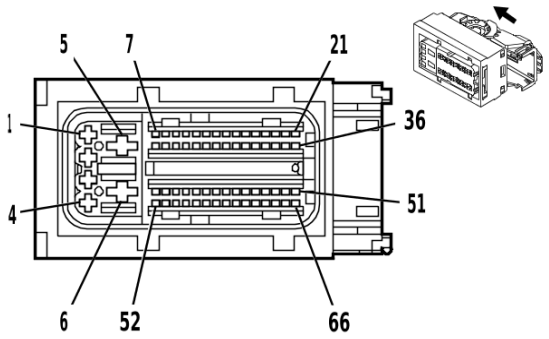
K20 Engine Control Module X3 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
14	0.5	D-BU/WH	225	Generator Turn On Signal	II	—
15	—	—	—	Not Occupied	—	—
16	0.75	YE	7301	High Pressure Fuel Pump High Control	II	—
17 - 20	—	—	—	Not Occupied	—	—
21	0.5	BK/BN	6753	Camshaft Position Actuator Solenoid Valve W Low Reference	II	—
22 - 23	—	—	—	Not Occupied	—	—
24	0.5	BK/L-GN	5301	Intake Camshaft Position Sensor Low Reference 1	II	—
25	0.5	VT/BU	6270	Crankshaft Position Sensor Voltage	II	—
26	0.5	BK/VT	6272	Crankshaft Position Sensor Low Reference	II	—
27	—	—	—	Not Occupied	—	—
28	0.5	D-BU/GY	2125	Ignition Control 5	II	—
29	0.5	D-BU/VT	2121	Ignition Control 1	II	—
30	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/BK	7300	High Pressure Fuel Pump Low Control	II	—
33 - 35	—	—	—	Not Occupied	—	—
36	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	II	—
37	0.5	BK/L-GN	469	Manifold Absolute Pressure Sensor Low Reference	II	—
38 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK/GY	626	Engine Control Vehicle Sensors Low Reference 1	II	—
44	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage 12	II	—
45 - 46	—	—	—	Not Occupied	—	—
47	0.75	D-BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	II	—
48	0.75	L-GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	II	—
49	0.75	GY/BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	II	—
50	0.75	WH/L-GN	4805	Direct Fuel Injector High Voltage Control Cylinder 5	II	—
51	0.75	VT/L-GN	4806	Direct Fuel Injector High Voltage Control Cylinder 6	II	—
52	0.75	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	II	—
53 - 54	—	—	—	Not Occupied	—	—
55	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference 2	II	—
56	0.5	D-BU/WH	3630	Throttle Position Sensor SENT 1 Signal	II	—
57	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	II	—
58	0.5	L-GN/WH	432	Manifold Absolute Pressure Sensor Signal	II	—
59 - 60	—	—	—	Not Occupied	—	—
61	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	II	—
62	—	—	—	Not Occupied	—	—
63	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	II	—
64	0.5	GY	23	Generator Field Duty Cycle Signal	II	—

K20 Engine Control Module X3 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
65 - 66	—	—	—	Not Occupied	—	—
67	0.75	D-BU/GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	II	—
68	0.75	L-GN/GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	II	—
69	0.75	D-BU/WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	II	—
70	0.75	L-GN/WH	4905	Direct Fuel Injector High Voltage Supply Cylinder 5	II	—
71	0.75	VT/GY	4906	Direct Fuel Injector High Voltage Supply Cylinder 6	II	—
72	0.75	BN/WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	II	—
73	3	BK/WH	1551	Ground 15	I	—

K20 Engine Control Module X1 (LWN)



2498868

Connector Part Information

Harness Type: Engine
OEM Connector: 35059716
Service Connector: 19370822
Description: 66-Way F 0.64 MTS-B, 2.8 ATS, 6.3 Ducon Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579752	J-35616-4A (PU)	J-38125-215A
II	13584448	J-35616-64B (LT BU)	J-38125-215A
III	13584530	J-35616-4A (PU)	J-38125-215A
IV	19369848	J-35616-64B (LT BU)	J-38125-215A

K20 Engine Control Module X1 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	VT/GY	1439	Run/Crank Ignition 1 Voltage 14	III	—
2	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

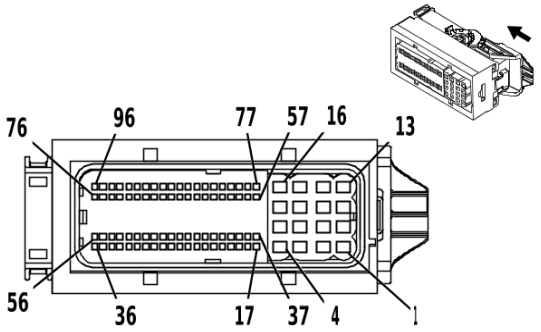
K20 Engine Control Module X1 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	0.5	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—
4	0.5	RD/BN	440	Secondary Fused Battery Positive Voltage 4	I	—
5	6	RD/YE	2	Battery Positive Voltage	IV	—
6	6	BK/WH	451	Ground 4	IV	—
7	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	II	—
8 - 10	—	—	—	Not Occupied	—	—
11	0.5	D-BU/YE	6861	Water In Fuel Sensor Signal	II	—
12	—	—	—	Not Occupied	—	—
13	0.5	WH/RD	1164	Accelerator Pedal Position 5 Volt Reference 1	II	—
14	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
15	0.5	L-GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
16	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
17	0.5	WH/BK	2366	Cooling Fan Speed Control Signal	II	—
18	0.5	BN/WH	419	Check Engine Indicator Control	II	—
19	0.5	L-GN/BN	507	Wait To Start Indicator Control	II	—
20	—	—	—	Not Occupied	—	—
21	0.5	YE	2928	Fuel Metering Solenoid Valve High Control	II	—
22	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage 4	II	—
23	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
24	—	—	—	Not Occupied	—	—
25	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	II	—
26	0.5	D-BU/VT	2364	Cooling Fan Speed Signal	II	—
27	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	—
28	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
34 - 35	—	—	—	Not Occupied	—	—
36	0.5	BN/BK	2929	Fuel Metering Solenoid Valve Low Control	II	—
37 - 38	—	—	—	Not Occupied	—	—
39	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	II	—
40	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK/BN	5360	Brake Apply Sensor Low Reference	II	—
44	0.5	WH	5359	Brake Apply Sensor Voltage Reference	II	—
45	0.5	WH/BU	6289	Intake Air Temperature Sensor Signal	II	—
46	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	II	—
47	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
48	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	II	—
49	—	—	—	Not Occupied	—	—
50	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	II	—
51	0.5	YE	5991	Powertrain Relay Coil Control	II	—
52 - 53	—	—	—	Not Occupied	—	—
54	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	II	—
55	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—

K20 Engine Control Module X1 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
56 - 58	—	—	—	Not Occupied	—	—
59	0.5	D-BU/YE	5361	Brake Apply Sensor Signal	II	—
60	0.5	BK/VT	2760	Intake Air Temperature Sensor Low Reference	II	—
61 - 63	—	—	—	Not Occupied	—	—
64	0.75	VT/BN	2927	Exhaust Aftertreatment Fuel Injector Low Control	II	—
65	—	—	—	Not Occupied	—	—
66	0.5	YE/BK	625	Starter Enable Relay Control	II	—

K20 Engine Control Module X2 (LWN)



4115094

Connector Part Information

Harness Type: Engine
OEM Connector: 35059745
Service Connector: 19370825
Description: 96-Way F 0.64 MTS-B, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584448	J-35616-64B (LT BU)	J-38125-215A
II	13584530	J-35616-4A (PU)	J-38125-215A

K20 Engine Control Module X2 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	D-BU/GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	II	—
2	1.5	L-GN/GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	II	—
3	1.5	D-BU/WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	II	—
4	1.5	BN/WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	II	—
5	1.5	D-BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	II	—

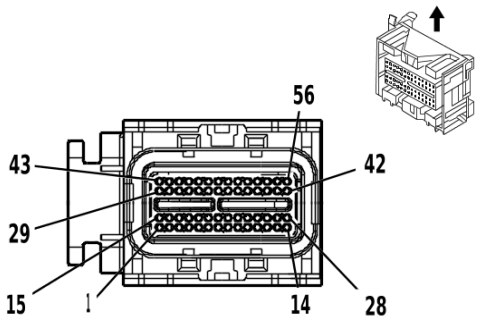
K20 Engine Control Module X2 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
6	1.5	L-GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	II	—
7	1.5	GY/BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	II	—
8	1.5	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	II	—
9 - 12	—	—	—	Not Occupied	—	—
13	2	GY/BN	1582	Glow Plug 2 Control	II	—
14	2	GY/YE	1584	Glow Plug 4 Control	II	—
15	2	GY/L-GN	1583	Glow Plug 3 Control	II	—
16	2	GY/BU	1581	Glow Plug 1 Control	II	—
17	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
18	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
19	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—
20 - 25	—	—	—	Not Occupied	—	—
26	0.5	BN	7348	Intake Air Temperature Sensor 2 Signal	I	—
27	0.5	BN/GY	7072	Fuel Temperature Sensor 1 Signal	I	—
28 - 29	—	—	—	Not Occupied	—	—
30	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	I	—
31	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
32	0.5	L-GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	—
33	—	—	—	Not Occupied	—	—
34	0.75	D-BU/WH	225	Generator Turn On Signal	I	—
35 - 37	—	—	—	Not Occupied	—	—
38	0.5	BN/YE	2161	Fuel Rail Pressure Sensor 2 Signal	I	—
39	—	—	—	Not Occupied	—	—
40	0.5	GY/BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	I	—
41	0.5	YE/VT	5275	Intake Camshaft Position Sensor 1	I	—
42	0.5	BK/L-GN	5301	Intake Camshaft Position Sensor Low Reference 1	I	—
43	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference 2	I	—
44	0.5	D-BU/WH	3630	Throttle Position Sensor SENT 1 Signal	I	—
45	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
46	—	—	—	Not Occupied	—	—
47	0.5	BN/WH	7073	Fuel Temperature Sensor 1 Low Reference	I	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—
51	0.5	YE/BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—
52	0.5	YE/BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	—
53 - 55	—	—	—	Not Occupied	—	—
56	0.75	BN/BU	2926	Exhaust Aftertreatment Fuel Injector High Control	I	—
57	0.5	BK/BN	2753	Exhaust Gas Recirculation Valve Position Sensor Low Reference	I	—

K20 Engine Control Module X2 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
58	0.5	BN/WH	5763	Exhaust Gas Recirculation Position Signal	I	—
59	0.5	D-BU/RD	5047	Exhaust Gas Recirculation Valve Position Sensor 5V Reference 1	I	—
60	0.5	BK/BN	6141	Cooling Fan Speed Sensor Low Reference	I	—
61	0.5	L-GN/YE	3337	Transmission Internal Mode Switch Mode Control Y	I	—
62	0.5	GY/RD	2365	Cooling Fan Speed Sensor 5V Reference	I	—
63	0.5	WH/RD	596	5 Volt Reference 2	I	—
64	—	—	—	Not Occupied	—	—
65	0.5	BK/GY	3927	Transmission Internal Mode Switch Feedback Signal	I	—
66	—	—	—	Not Occupied	—	—
67	0.75	GY	23	Generator Field Duty Cycle Signal	I	—
68	—	—	—	Not Occupied	—	—
69	0.5	BK/L-GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
70	0.5	VT/BK	5746	Exhaust Gas Recirculation Valve Low Control	I	—
71	0.5	WH/VT	5764	Exhaust Gas Recirculation Valve High Control	I	—
72	0.5	GY/BU	5930	Turbocharger Vane Position Control Solenoid Valve Circuit High Signal	I	—
73	0.5	WH/BK	5931	Turbocharger Vane Position Control Solenoid Valve Circuit Low Signal	I	—
74 - 75	—	—	—	Not Occupied	—	—
76	0.5	BK/YE	2834	Fuel Rail Pressure Solenoid Valve Low Reference	I	—
77 - 79	—	—	—	Not Occupied	—	—
80	0.5	BK/L-GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
81	0.5	L-GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
82	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
83	0.5	VT/BU	6270	Crankshaft Position Sensor Voltage	I	—
84	0.5	L-GN	6271	Crankshaft Position Sensor Signal	I	—
85	0.5	BK/VT	6272	Crankshaft Position Sensor Low Reference	I	—
86	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	—
87	—	—	—	Not Occupied	—	—
88	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—
89	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
90	0.5	BN/WH	582	Throttle Actuator Close Control	I	—
91	0.5	YE	581	Throttle Actuator Open Control	I	—
92 - 93	—	—	—	Not Occupied	—	—
94	0.5	YE/BU	3231	Exhaust Gas Recirculation Cooler Bypass Solenoid Valve Control	I	—
95	0.5	GY/BU	3230	Exhaust Gas Recirculation Cooler Bypass Solenoid Valve Control	I	—
96	0.5	D-BU/WH	2530	Fuel Rail Pressure Solenoid Valve Control	I	—

K20 Engine Control Module X3 (LWN)



784851

Connector Part Information

Harness Type: Engine
OEM Connector: 13510837
Service Connector: 88988373
Description: 56-Way F 0.64 Series, Sealed (BU with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (LT BU)	J-38125-213

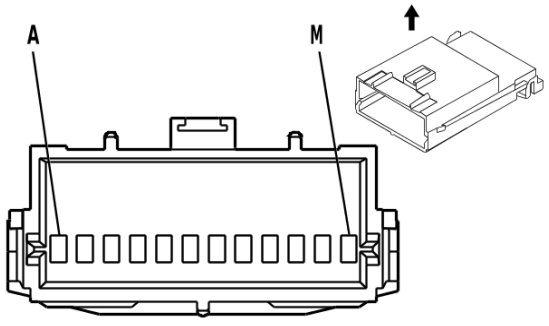
K20 Engine Control Module X3 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	3100	Diesel Exhaust Fluid Dosing Valve Low Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK/L-GN	6281	Fuel Level Sensor Low Reference	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
7	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
8	0.5	BK/YE	407	Sensor Low Reference	I	—
9	0.5	BK/VT	3661	Exhaust Gas Temperature Sensor 5 Low Reference	I	—
10	0.5	BK/BU	6274	Exhaust Gas Recirculation Temperature Sensor Low Reference	I	—
11	0.5	BK/GY	3659	Exhaust Gas Temperature Sensor 4 Low Reference	I	—
12	0.5	BK/L-GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—
13	0.5	BK/BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	—
14	0.5	D-BU/WH	5277	Exhaust Gas Temperature Sensor 1 Signal	I	—
15	0.5	BN	3099	Diesel Exhaust Fluid Dosing Valve High Control	I	—
16 - 17	—	—	—	Not Occupied	—	—
18	0.5	D-BU/VT	1589	Primary Fuel Level Sensor Signal 2	I	—
19	0.5	BK/YE	6275	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	I	—

K20 Engine Control Module X3 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	0.5	YE/L-GN	3236	Exhaust Gas Recirculation Temperature Sensor 2 Signal	I	—
21	0.5	GY/RD	5928	Turbocharger Vane Position Sensor Voltage Reference	I	—
22	0.5	L-GN/BK	735	Ambient Air Temperature Sensor Signal 2	I	—
23	0.5	D-BU/GY	3660	Exhaust Gas Temperature Sensor 5 Signal	I	—
24	0.5	WH/BN	3237	Exhaust Gas Recirculation Temperature Sensor Signal	I	—
25	0.5	VT/BN	3658	Exhaust Gas Temperature Sensor 4 Signal	I	—
26	0.5	GY/L-GN	5378	Exhaust Gas Temperature Sensor 3 Signal	I	—
27	0.5	BK/BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	—
28	0.5	D-BU/ L-GN	5377	Exhaust Gas Temperature Sensor 2 Signal	I	—
29	—	—	—	Not Occupied	—	—
30	0.5	YE/BU	1497	Positive Crankcase Ventilation Heater Control	I	—
31	—	—	—	Not Occupied	—	—
32	0.5	BN/GY	4008	Humidity Sensor Signal	I	—
33	0.5	BK/BN	5929	Turbocharger Vane Position Sensor Low Reference	I	—
34 - 42	—	—	—	Not Occupied	—	—
43	0.5	L-GN/BU	3889	Powertrain Sensor Bus Relay Control	I	—
44	—	—	—	Not Occupied	—	—
45	0.5	D-BU	3017	Fuel Heater Relay 1 Control	I	—
46	0.5	VT/YE	5947	Turbocharger Vane Position Sensor Signal	I	—
47 - 49	—	—	—	Not Occupied	—	—
50	0.5	WH/RD	6054	Exhaust Pressure Sensor 1 5V Reference	I	—
51	0.5	D-BU	6053	Exhaust Pressure Sensor 1 Signal	I	—
52	0.5	BK/YE	6055	Exhaust Pressure Sensor 1 Low Reference	I	—
53 - 56	—	—	—	Not Occupied	—	—

K33A HVAC Control Module - Auxiliary



328486

Connector Part Information

Harness Type: Headliner
OEM Connector: 12040747
Service Connector: 12101938
Description: 12-Way P/C Edgeboard Standard Series (BK)

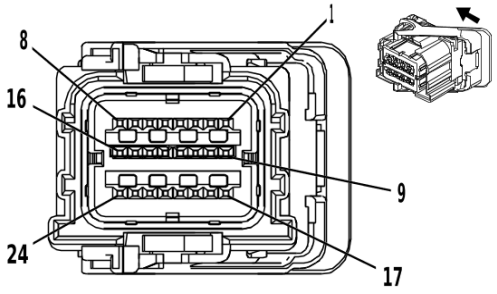
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19330178	J-35616-4A (PU)	J-38125-12A

K33A HVAC Control Module - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	PU	5260	Auxiliary HVAC Front Temperature Signal	I	—
B	0.35	OG	2775	Rear Air Temperature Door Actuator Control	I	—
C	0.5	BN	5263	Auxiliary HVAC Rear Temperature Signal	I	—
D	0.5	PU/WH	5264	Auxiliary HVAC Rear Mode Signal	I	—
E	0.35	TN	5261	Auxiliary HVAC Front Mode Signal	I	—
F	0.35	GY	2599	Rear Mode Door Actuator Signal	I	—
G	—	—	—	Not Occupied	—	—
H	0.35	BK	1850	Ground 18	I	—
J	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
K	—	—	—	Not Occupied	—	—
L	0.5	PK/BK	5265	Auxiliary HVAC Rear Control Signal	I	—
M	0.35	YE	5262	Auxiliary HVAC Rear Controls Enable Signal	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1



3240106

Connector Part Information

Harness Type: Body
OEM Connector: 13859806
Service Connector: 13579314
Description: 24-Way F 0.64 Series, Sealed (YE)

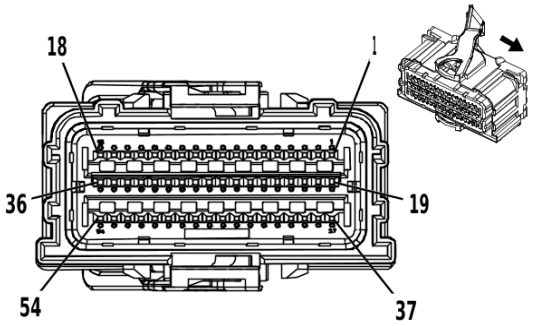
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19328872	J-35616-64B (LT BU)	J-38125-215A
II	19367373	J-35616-64B (LT BU)	J-38125-215A

K36 Inflatable Restraint Sensing and Diagnostic Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BN	3020	Steering Wheel Air Bag Stage 1 Low Control	II	—
4	0.5	TN	3021	Steering Wheel Air Bag Stage 1 High Control	II	—
5	0.5	YE	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	II	—
6	0.5	OG	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	II	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.5	RD/WH	3440	Secondary Fused Battery Positive Voltage 34	II	—
10 - 12	—	—	—	Not Occupied	—	—
13	0.5	PK	353	Passenger Supplemental Inflatable Restraint Suppression Indicator Control	II	—
14	0.5	TN/BK	371	Passenger Supplemental Inflatable Restraint Disable Switch Signal	II	—
15	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
16	—	—	—	Not Occupied	—	—
17	0.35	PK	1139	Run/Crank Ignition 1 Voltage 11	I	—
18	—	—	—	Not Occupied	—	—
19	0.5	BK/WH	1751	Ground 17	II	—
20 - 24	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2



2817420

Connector Part Information

Harness Type: Body
OEM Connector: 13914358
Service Connector: 19303770
Description: 54-Way F 0.64 Series, Sealed (YE)

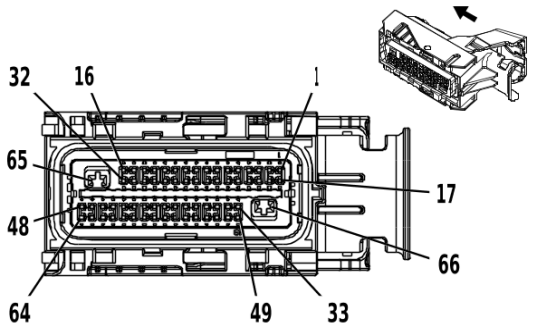
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19367373	J-35616-64B (LT BU)	J-38125-215A

K36 Inflatable Restraint Sensing and Diagnostic Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 10	—	—	—	Not Occupied	—	—
11	0.5	TN/BK	7016	Right Rear Roof Rail Air Bag Low Control	I	—
12	0.5	L-BU	7015	Right Rear Roof Rail Air Bag High Control	I	—
13	0.5	BN	2137	Left Front Seat Side Air Bag High Control	I	—
14	0.5	YE/BK	2138	Left Front Seat Side Air Bag Low Control	I	—
15	0.5	L-GN	2136	Right Front Seat Side Air Bag Low Control	I	—
16	0.5	TN/WH	2135	Right Front Seat Side Air Bag High Control	I	—
17	0.5	PU/WH	5019	Left Front Roof Rail Air Bag High Control	I	—
18	0.5	PK	5020	Left Front Roof Rail Air Bag Low Control	I	—
19	0.5	WH	2132	Left Front Side Impact Sensor Signal	I	—
20	0.5	PU/WH	6628	Left Front Side Impact Sensor Low Reference	I	—
21	0.5	WH/BK	6629	Right Front Side Impact Sensor Low Reference	I	—
22	0.5	D-GN	2134	Right Front Side Impact Sensor Signal	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.5	D-BU/WH	6619	Front Middle Impact Discriminating Sensor Low Reference	I	—
26	0.5	BN/WH	6618	Front Middle Impact Discriminating Sensor Signal	I	—
27	0.5	D-GN/WH	6620	Left Middle Side Impact Sensor Signal	I	—
28	0.5	GY/BK	6621	Left Middle Side Impact Sensor Low Reference	I	—
29	0.5	L-GN/WH	6625	Right Middle Side Impact Sensor Low Reference	I	—
30	0.5	L-BU/BK	6624	Right Middle Side Impact Sensor Signal	I	—
31 - 36	—	—	—	Not Occupied	—	—
37	0.5	TN/WH	2118	Driver Seat Belt Pretensioner High Control	I	—
38	0.5	OG/BK	2119	Driver Seat Belt Pretensioner Low Control	I	—
39	0.5	OG	2117	Passenger Seat Belt Pretensioner Low Control	I	—
40	0.5	L-GN	2116	Passenger Seat Belt Pretensioner High Control	I	—
41	0.5	TN/WH	238	Driver Seat Belt Switch Signal	I	—
42	—	—	—	Not Occupied	—	—
43	0.5	PK	5057	Seat Position Switch Low Reference	I	—
44 - 52	—	—	—	Not Occupied	—	—
53	0.5	YE/BK	5021	Right Front Roof Rail Air Bag High Control	I	—
54	0.5	WH/BK	5022	Right Front Roof Rail Air Bag Low Control	I	—

K71 Transmission Control Module



3621452

Connector Part Information

Harness Type: Engine
OEM Connector: 13965710
Service Connector: 19329822
Description: 66-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579769	J-35616-35 (VT)	J-38125-11A
II	19354746	J-35616-64B (LT BU)	J-38125-213
III	19354746	J-35616-64B (LT BU)	J-38125-215A

K71 Transmission Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BU	4507	Transmission Clutch H Control	II	—
	0.5	WH/BU	4507	Transmission Clutch H Control	III	—
2	0.5	BU	6401	Clutch Solenoid Valve B Control	III	—
	0.5	BU	6401	Clutch Solenoid Valve B Control	II	—
3	0.5	GN/WH	1530	Transmission Line Pressure Control Solenoid Valve Control	III	—
	0.5	GY/GN	6403	Clutch Solenoid Valve D Control	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	YE/GN	4170	Transmission Output Shaft Speed Sensor Circuit 9V Reference	III	—
	0.5	YE/GN	4170	Transmission Output Shaft Speed Sensor Circuit 9V Reference	II	—
8	0.5	YE/BU	4171	Transmission Input Shaft Speed Sensor Circuit 9V Reference	III	—
	0.5	YE/BU	4171	Transmission Input Shaft Speed Sensor Circuit 9V Reference	II	—
9 - 12	—	—	—	Not Occupied	—	—
13	0.5	GN/VT	4510	Transmission Intermediate Speed Signal	III	—
	0.5	GN/VT	4510	Transmission Intermediate Speed Signal	II	—
14	0.5	GY/BU	6358	Output Speed Signal	III	—
	0.5	GY/BU	6358	Output Speed Signal	II	—
15	0.5	GN/YE	6353	Input Speed Signal	III	—
	0.5	GN/YE	6353	Input Speed Signal	II	—

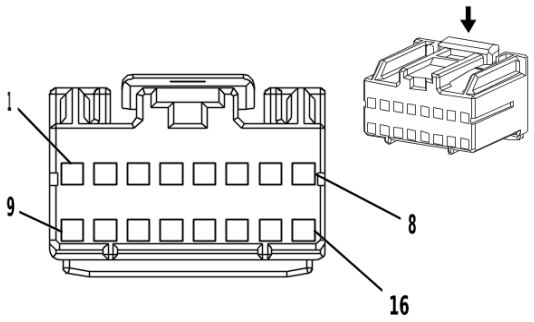
K71 Transmission Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
16	—	—	—	Not Occupied	—	—
17	0.5	WH	4508	Transmission Clutch G Control	III	—
	0.5	WH	4508	Transmission Clutch G Control	II	—
18	0.5	BN	6400	Clutch Solenoid Valve A Control	III	—
	0.5	BN	6400	Clutch Solenoid Valve A Control	II	—
19	0.5	GY	6402	Clutch Solenoid Valve C Control	II	—
	0.5	GY	6402	Clutch Solenoid Valve C Control	III	—
20	0.5	VT/WH	422	Torque Converter Clutch Solenoid Valve Control	III	—
	0.5	YE/BN	6404	Clutch Solenoid Valve E Control	II	—
21	0.5	GN/WH	6380	Torque Converter Clutch Enable Solenoid Valve A Control	III	—
	0.5	GN/WH	6380	Torque Converter Clutch Enable Solenoid Valve A Control	II	—
22	0.5	YE/BN	6210	Torque Converter Clutch Enable Solenoid Valve B Control	II	—
	0.5	YE/BN	6210	Torque Converter Clutch Enable Solenoid Valve B Control	III	—
23 - 27	—	—	—	Not Occupied	—	—
28	0.5	BK/BN	586	Transmission Fluid Temperature Sensor Low Reference	II	—
	0.5	BK/BN	586	Transmission Fluid Temperature Sensor Low Reference	III	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	GN/GY	6387	Transmission High Side Driver 1 Control	III	—
	0.5	GN/GY	6387	Transmission High Side Driver 1 Control	II	—
34	—	—	—	Not Occupied	—	—
35	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage 21	III	—
	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage 21	II	—
36	—	—	—	Not Occupied	—	—
37	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	III	—
	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
38	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	III	—
39 - 48	—	—	—	Not Occupied	—	—
49	0.75	GY/BN	6388	Transmission High Side Driver 2 Control	III	—
	0.75	GY/BN	6388	Transmission High Side Driver 2 Control	II	—
50	—	—	—	Not Occupied	—	—
51	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	III	—
	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	II	—
52	—	—	—	Not Occupied	—	—
53	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	III	—
	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
54	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	III	—
	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
55 - 62	—	—	—	Not Occupied	—	—
63	0.5	BN/WH	585	Transmission Fluid Temperature Sensor Signal	III	—
	0.5	BN/WH	585	Transmission Fluid Temperature Sensor Signal	II	—
64	0.5	BU/WH	3338	Transmission Internal Mode Switch Mode Control X	II	—
	0.5	BU/WH	3338	Transmission Internal Mode Switch Mode Control X	III	—

K71 Transmission Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
65	0.75	BK/WH	1551	Ground 15	I	—
66	0.75	RD/GN	1840	Secondary Fused Battery Positive Voltage 18	I	—

K73 Telematics Communication Interface Control Module X1



1471689

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15431362
Service Connector: 15306351
Description: 16-Way F 100A Micro-Pack Series (NA)

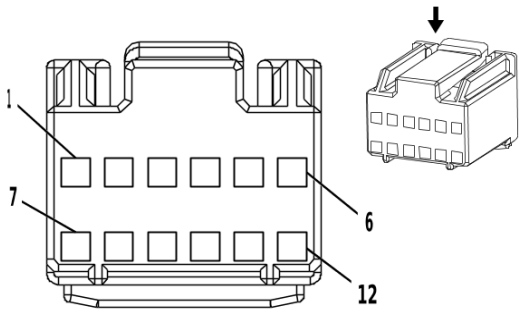
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575548	J-35616-16 (LT GN)	J-38125-559

K73 Telematics Communication Interface Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-GN	5060	Low Speed GMLAN Serial Data	I	—
2	0.8	BN/WH	2517	Keypad Red LED Control	I	—
3	0.8	YE/BK	2516	Keypad Green LED Control	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.8	L-GN/BK	2515	Keypad Control	I	—
7	0.8	BK/WH	351	Ground 3	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
11	0.8	D-GN/WH	2514	Keypad Signal	I	—
12	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
13 - 14	—	—	—	Not Occupied	—	—
15	0.8	RD/WH	3240	Secondary Fused Battery Positive Voltage 32	I	—
16	—	—	—	Not Occupied	—	—

K73 Telematics Communication Interface Control Module X2



1471691

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15431365
Service Connector: 88952886
Description: 12-Way F 100A Micro-Pack Series (NA)

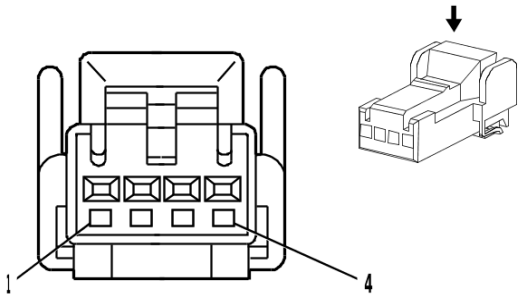
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575546	J-35616-16 (LT GN)	J-38125-559
II	13575548	J-35616-16 (LT GN)	J-38125-559

K73 Telematics Communication Interface Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8 0.35	D-BU D-BU	658 658	Cellular Telephone Voice Signal Cellular Telephone Voice Signal	II I	(UE1)-(UI8+UL5) -UE1
2	0.8 0.35	L-BU/BK L-BU/BK	659 659	Cellular Telephone Voice Low Reference Cellular Telephone Voice Low Reference	II I	(UE1)-(UI8+UL5) -UE1
3	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
4	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
5	0.35	Bare	1792	Low Reference 7	I	—
6	0.35	PK	5149	Voice Recognition Audio Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.8 0.35	Bare Bare	1792 1782	Low Reference 7 Low Reference 6	II I	(UE1)-(UI8+UL5) -UE1
9	0.8	GY	655	Cellular Telephone Microphone Signal	II	—
10	0.8	D-GN	654	Cellular Telephone Microphone Low Reference	II	—
11	—	—	—	Not Occupied	—	—
12	0.35	PK/BK	5152	Voice Recognition Audio [-] Control	I	—

K77 Remote Control Door Lock Receiver



1673483

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15462684
Service Connector: 13585474
Description: 4-Way F IL-AG5 Series (GN)

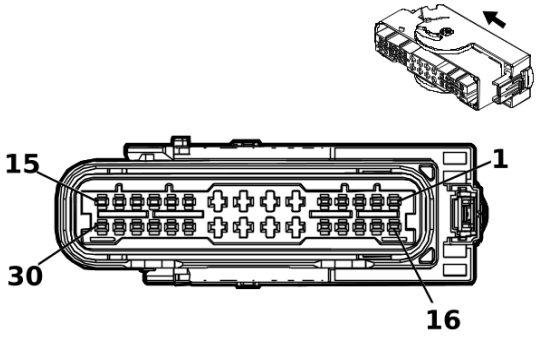
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

K77 Remote Control Door Lock Receiver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	5340	Secondary Fused Battery Positive Voltage 53	I	—
2	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BK/WH	351	Ground 3	I	—

K111 Fuel Pump Driver Control Module



3240109

Connector Part Information

Harness Type: Chassis
OEM Connector: 33386317

Service Connector: 19354086
Description: 30-Way F 1.5, 2.8 Series, Sealed (BK)

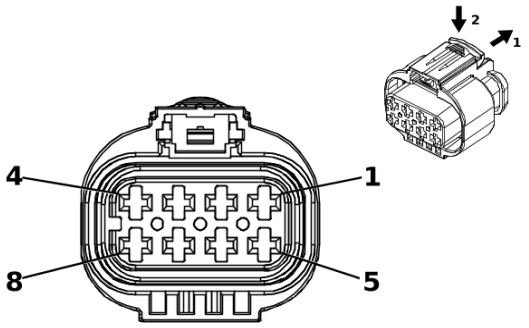
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300440	J-35616-4A (PU)	J-38125-557
II	19329958	J-35616-2A (GY)	J-38125-11A

K111 Fuel Pump Driver Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 6	—	—	—	Not Occupied	—	—
7	2.5	RD/VT	1940	Secondary Fused Battery Positive Voltage 19	I	—
8	2.5	GY	120	Fuel Pump Control	I	—
9	2.5	YE/GY	4137	Fuel Pump Supply Voltage Phase 2	I	—
10	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	II	—
11	0.5	BU/WH	890	Fuel Tank Pressure Sensor Signal	II	—
12	0.5	BN/RD	7445	Fuel Pressure Sensor 5V Reference	II	—
13	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal 2	II	—
14	—	—	—	Not Occupied	—	—
15	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	II	—
16	0.5	VT/GN	4320	Selective Catalytic Reduction Power Module Wake-Up Signal	II	—
17	0.5	VT	2739	Run/Crank Ignition 1 Voltage 27	II	—
18	0.5	GN/GY	465	Fuel Pump Primary Relay Control	II	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	WH	1310	EVAP Vent Solenoid Valve Control	I	—
22	2.5	BK	2150	Ground 21	I	—
23	0.5	BK	7444	Fuel Pump Assembly Shield Ground	I	—
24	2.5	WH/BN	4138	Fuel Pump Supply Voltage Phase 3	I	—
25	0.5	BK/BN	6284	Fuel Tank Pressure Sensor Low Reference	II	—
26	0.5	BU/WH	7446	Fuel Pressure Sensor Signal	II	—
27	0.5	BK/YE	7447	Fuel Pressure Sensor Low Reference	II	—
28	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	II	—
29	—	—	—	Not Occupied	—	—
30	0.5 0.5	WH BU/BN	4498 4498	High Speed GMLAN Serial Data [+] 7 High Speed GMLAN Serial Data [+] 7	II II	— —

K115 Reductant Control Module



3749581

Connector Part Information

Harness Type: Chassis
OEM Connector: 15530717
Service Connector: 19370092
Description: 8-Way F 2.8 Series, Sealed (BK)

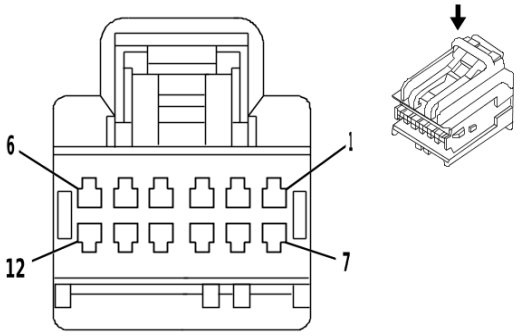
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required
II	Not Required	J-35616-4A (PU)	No Tool Required

K115 Reductant Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/L-GN	2440	Secondary Fused Battery Positive Voltage 24	II	—
2	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
3	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
4	1.5	BK	150	Ground 1	II	—
5	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	II	—
6	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
7	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
8	2.5	D-BU	3921	—	II	—

K182 Parking Assist Control Module X1



1664569

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13784026
Service Connector: 13525987
Description: 12-Way F 0.64 Series (BK)

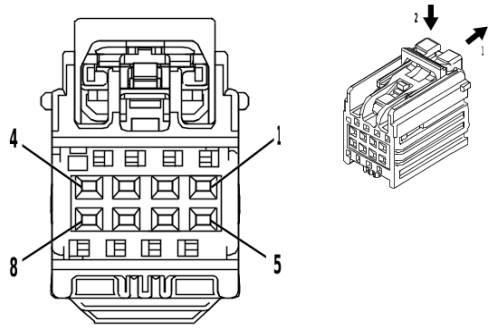
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575549	J-35616-16 (LT GN)	J-38125-559
II	13575550	J-35616-16 (LT GN)	J-38125-559

K182 Parking Assist Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	840	Secondary Fused Battery Positive Voltage 8	II	—
2 - 5	—	—	—	Not Occupied	—	—
6	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
7	0.5	BK/WH	351	Ground 3	II	—
8 - 12	—	—	—	Not Occupied	—	—

K182 Parking Assist Control Module X2



4280711

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33183559
Service Connector: 19355209
Description: 8-Way F YESC Kaizen Series (GY)

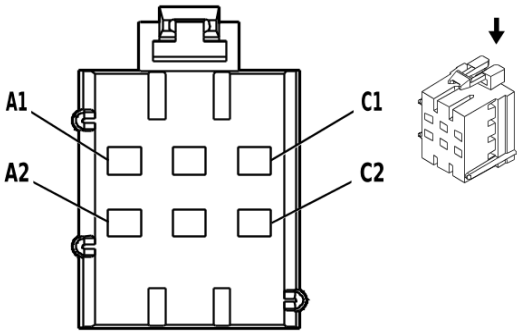
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

K182 Parking Assist Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	2378	Right Rear Outer Parking Assist Sensor Signal	I	—
2	0.5	YE/WH	2377	Right Rear Middle Parking Assist Sensor Signal	I	—
3	0.5	YE/BU	2376	Left Rear Middle Parking Assist Sensor Signal	I	—
4	0.5	BN/WH	2374	Object Sensor Supply Voltage	I	—
5	0.5	YE	2375	Left Rear Outer Parking Assist Sensor Signal	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

KR32B Blower Motor High Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series (GY)

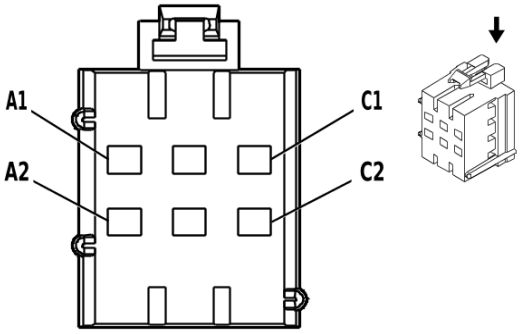
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

KR32B Blower Motor High Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
A2	5	YE	1172	Auxiliary Blower Motor Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

KR32C Blower Motor Low Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series (GY)

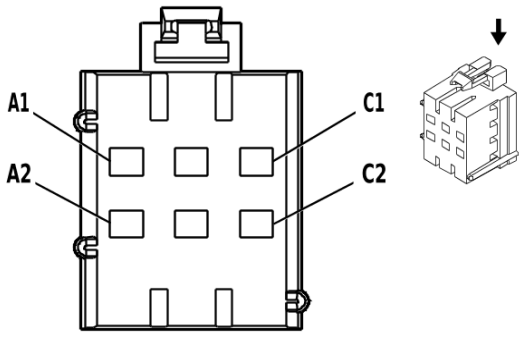
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

KR32C Blower Motor Low Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	D-BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
A2	3	YE	1176	Auxiliary Blower Motor Low Speed Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

KR32D Blower Motor Medium Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series (GY)

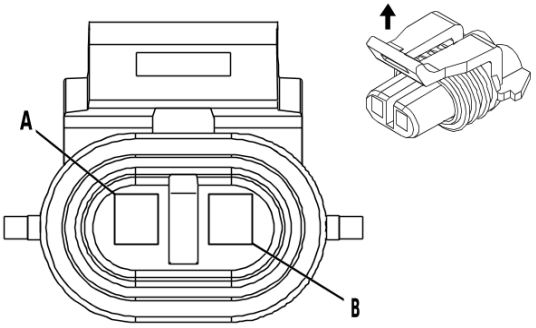
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

KR32D Blower Motor Medium Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
A2	3	L-BU	1072	Auxiliary Blower Motor Medium Speed Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

KR81 Auxiliary Battery Relay 1 X1



635009

Connector Part Information

Harness Type: Engine
OEM Connector: 12052641

Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series (BK)

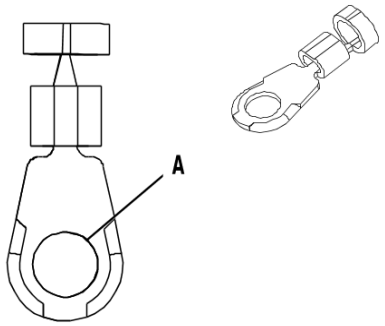
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

KR81 Auxiliary Battery Relay 1 X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	RD/WH	4892	Auxiliary Battery Relay Control	I	—
B	0.75	BK/WH	1551	Ground 15	I	—

KR81 Auxiliary Battery Relay 1 X2



3385519

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12146365
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

KR81 Auxiliary Battery Relay 1 X3 (-TP2)

—

Connector Part Information

Harness Type: Accessory
OEM Connector: 12103504
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

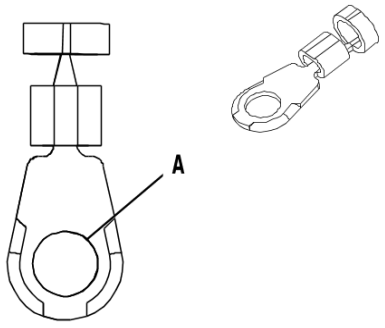
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X3 (-TP2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD	102	Battery Positive Voltage 1	I	—

KR81 Auxiliary Battery Relay 1 X3 (TP2)



3385519

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12146365
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

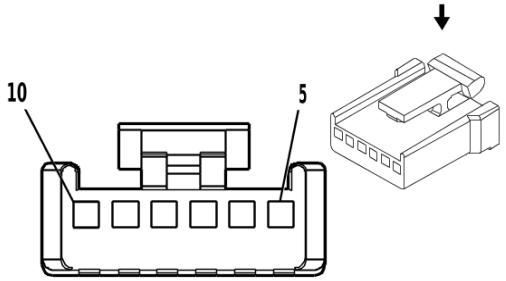
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X3 (TP2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

M6 Air Temperature Door Actuator



281207

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12040953
Service Connector: 12102632
Description: 6-Way F 100 Micro-Pack Series (BK)

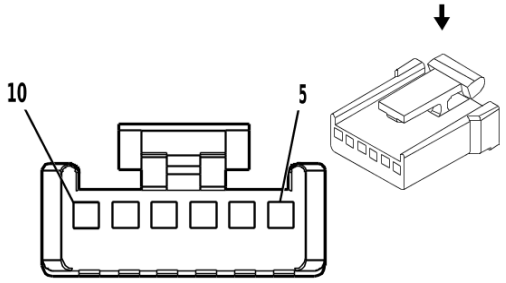
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-6 (BN)	No Tool Required

M6 Air Temperature Door Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	1	BK	550	Ground 5	I	—
8	0.8	L-BU	733	Air Temperature Door Position Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

M6B Air Temperature Door Actuator - Auxiliary



281207

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12040953

Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 100 Micro-Pack Series (BK)

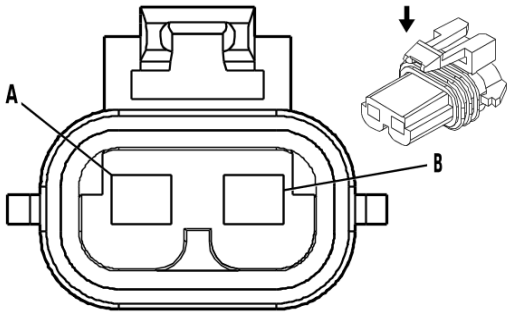
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-6 (BN)	No Tool Required

M6B Air Temperature Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	BK	850	Ground 8	I	—
8	0.35	OG	2775	Rear Air Temperature Door Actuator Control	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

M8B Blower Motor - Auxiliary



684799

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12077900
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

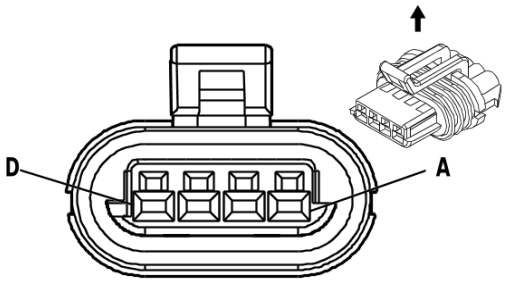
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M8B Blower Motor - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	BK	850	Ground 8	I	—
B	5	YE	1172	Auxiliary Blower Motor Control	I	—

M13 Door Latch Assembly - Rear Cargo X1



655858

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 15336846
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BU)

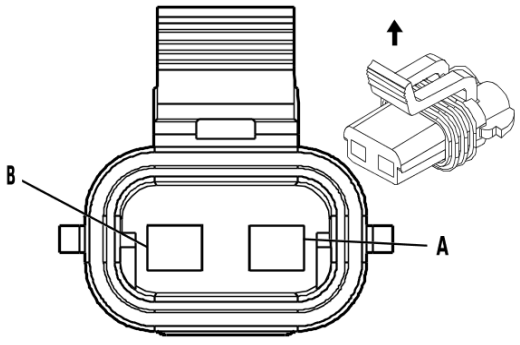
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

M13 Door Latch Assembly - Rear Cargo X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK/WH	1051	Ground 10	I	—
B	—	—	—	Not Occupied	—	—
C	0.35	PK/BK	1303	Liftgate Ajar Switch Signal 1	I	—
D	0.35	L-GN	5926	Rear Body Opening Open Switch Signal	I	—

M13 Door Latch Assembly - Rear Cargo X2



68721

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 15300027

Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

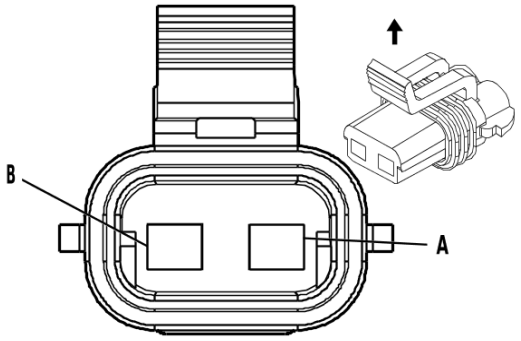
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M13 Door Latch Assembly - Rear Cargo X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	TN/BK	1095	Right Rear Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

M14RR Door Lock Actuator - Right Rear (E24)



68721

Connector Part Information

Harness Type: Sliding Door
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

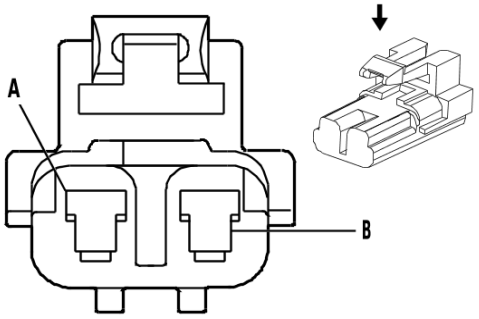
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M14RR Door Lock Actuator - Right Rear (E24)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

M14RR Door Lock Actuator - Right Rear (YA2)



62488

Connector Part Information

Harness Type: Sliding Door
OEM Connector: 12084957
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series (BK)

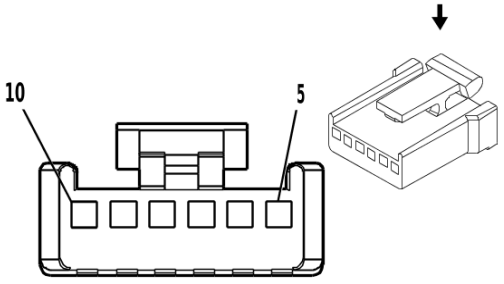
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M14RR Door Lock Actuator - Right Rear (YA2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	GY	295	Door Lock Actuator Lock Control	I	—
B	0.8	TN	294	Door Lock Actuator Unlock Control	I	—

M37B Mode Door Actuator - Auxiliary



281207

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12040953
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 100 Micro-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-6 (BN)	No Tool Required

M37B Mode Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	BK	850	Ground 8	I	—
8	0.35	GY	2599	Rear Mode Door Actuator Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

M64 Starter Motor X1 (L8T+TP3)

GRAPHIC PENDING

5525555

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 35268571
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

M64 Starter Motor X1 (L8T+TP3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	(L8T+TP3)-5SP
	13	RD	1	Unfused Battery Positive Voltage	I	L8T+TP3

M64 Starter Motor X1 (L8T-TP3)

GRAPHIC PENDING

5525555

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 35205441
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

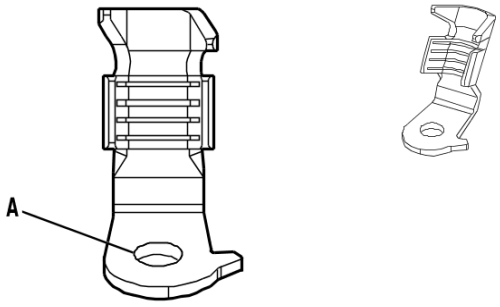
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

M64 Starter Motor X1 (L8T-TP3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

M64 Starter Motor X1 (LV1)



4937583

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 35116268
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

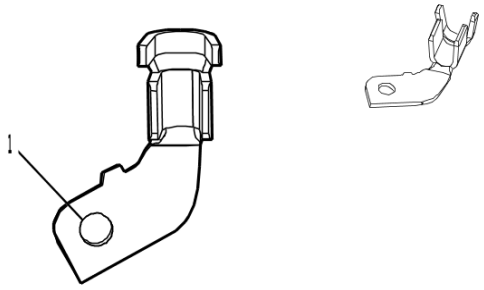
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

M64 Starter Motor X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—
	32	RD	1	Unfused Battery Positive Voltage		—

M64 Starter Motor X1 (LWN)



4892115

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 33253169
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

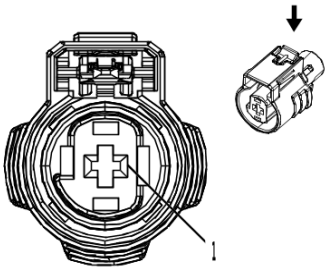
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

M64 Starter Motor X1 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	32	RD	1	Unfused Battery Positive Voltage	I	—

M64 Starter Motor X2



2717134

Connector Part Information

Harness Type: Engine
OEM Connector: 15526411
Service Connector: 19300471
Description: 1-Way F 2.8 MCP Series, Sealed (BK)

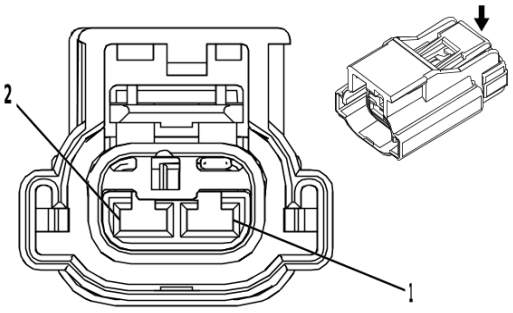
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M64 Starter Motor X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	PU	6	Starter Solenoid Actuator Crank Ignition Voltage	I	—

M74D Window Motor - Driver



3372003

Connector Part Information

Harness Type: Driver Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

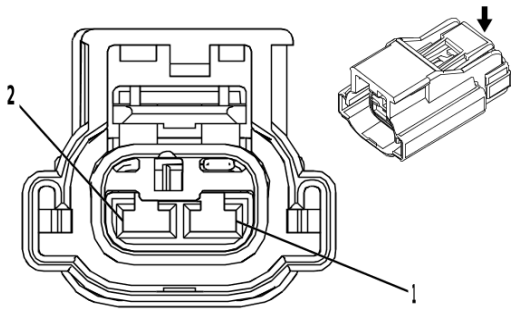
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M74D Window Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	D-BU	164	Left Front Window Motor Up Control	I	—
2	3	BN	165	Window Motor Left Front Down Control	I	—

M74P Window Motor - Passenger



3372003

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

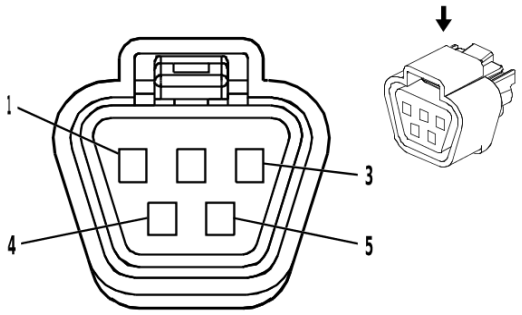
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M74P Window Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	D-BU	666	Right Front Window Motor Up Control	I	—
2	3	BN	667	Right Front Window Motor Down Control	I	—

M75 Windshield Wiper Motor



1715213

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15316488
Service Connector: 13587179
Description: 5-Way F 090 Series, Sealed (BK)

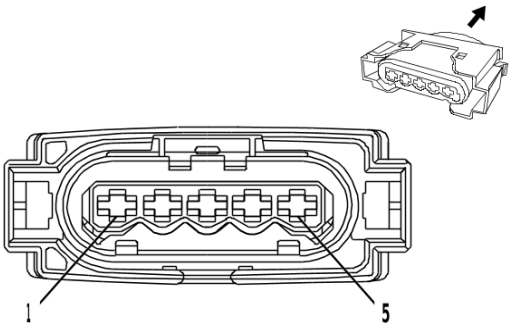
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-18 (BK)	No Tool Required

M75 Windshield Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	D-GN	95	Windshield Wiper Motor Low Speed Control	II	—
2	0.35	BK/WH	351	Ground 3	I	—
3	0.35	YE	196	Windshield Wiper Motor Park Switch Signal	I	—
4	2	PU	92	Windshield Wiper Motor High Speed Control	II	—
5	2	BK	1250	Ground 12	II	—

M103 Turbocharger Vane Position Actuator



3794114

Connector Part Information

Harness Type: Engine
OEM Connector: 10890285
Service Connector: 19368141
Description: 5-Way F 2.8 SLK Series (BK)

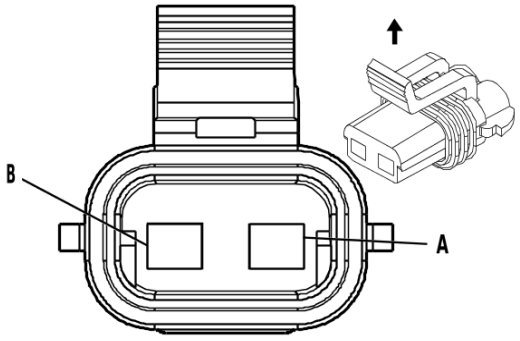
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M103 Turbocharger Vane Position Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	5930	Turbocharger Vane Position Control Solenoid Valve Circuit High Signal	I	—
2	0.5	WH/BK	5931	Turbocharger Vane Position Control Solenoid Valve Circuit Low Signal	I	—
3	0.5	BK/BN	5929	Turbocharger Vane Position Sensor Low Reference	I	—
4	0.5	VT/YE	5947	Turbocharger Vane Position Sensor Signal	I	—
5	0.5	GY/RD	5928	Turbocharger Vane Position Sensor Voltage Reference	I	—

P3 Backup Alarm



68721

Connector Part Information

Harness Type: Chassis
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

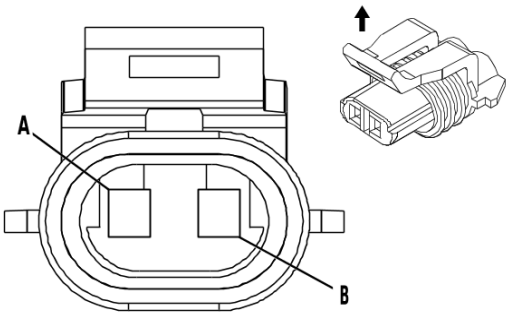
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

P3 Backup Alarm

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	L-GN	1624	Trailer Backup Lamp Control	I	—
B	1	BK	150	Ground 1	I	—

P13 Horn Assembly



537107

Connector Part Information

Harness Type: Engine
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

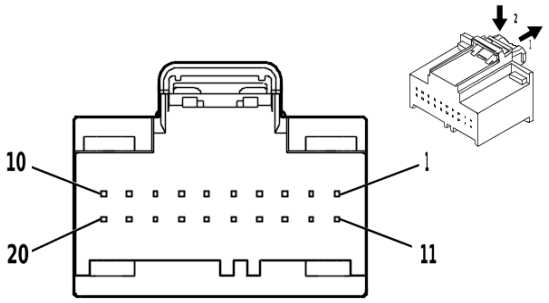
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P13 Horn Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	BK	1250	Ground 12	I	—
B	1	BN/GY	29	Horn Control	I	—

P16 Instrument Cluster



5112891

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35160140
Service Connector: 13525990
Description: 20-Way F 0.64 Series (BK)

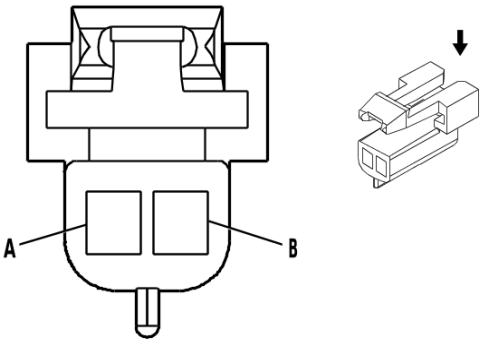
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (LT BU)	J-38125-215A
II	13575867	J-35616-64B (LT BU)	J-38125-215A

P16 Instrument Cluster

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN	5060	Low Speed GMLAN Serial Data	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	L-GN	1478	Coolant Level Switch Signal	I	—
4	0.5	BN/WH	419	Check Engine Indicator Control	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	GY/YE	3885	Forward Collision Alert LED Control	II	—
7	0.35	BK/WH	351	Ground 3	II	—
8	0.35	WH/L-GN	3535	Reflected LED Display Dimming Control	II	—
9	0.5	L-GN/BN	507	Wait To Start Indicator Control	I	—
10	0.5	D-BU/GY	636	Ambient Air Temperature Sensor Signal	I	—
11	0.5	BK/BU	61	Ambient Air Temperature Sensor Low Reference	I	—
12	0.35	D-BU	2307	Passenger Air Bag On Indicator Control	II	—
13	0.35	D-GN	2308	Passenger Air Bag Off Indicator Control	II	—
14	0.5	TN/WH	33	Brake Warning Indicator Control	I	—
15	0.75	L-GN/GY	333	Brake Fluid Level Switch Signal	I	—
16	0.35	PK	893	Driver Information Center Select Menu Switch Signal	II	—
17	0.35	D-GN/WH	1358	Driver Information Center Switch Signal	II	—
18	0.35	BN	897	Driver Information Center Switch Low Reference	II	—
19	0.35	PK	1639	Run/Crank Ignition 1 Voltage 16	II	—
20	0.35	RD/WH	2840	Secondary Fused Battery Positive Voltage 28	II	—

P19AG Speaker - Left Front Door



280768

Connector Part Information

Harness Type: Driver Door
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

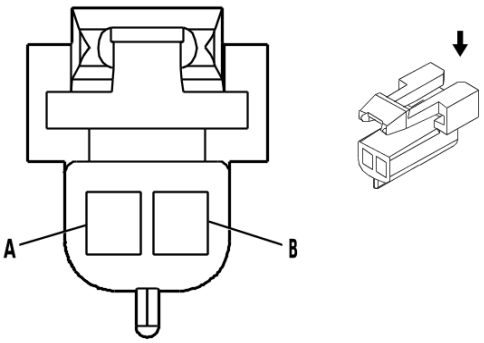
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19AG Speaker - Left Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	L-BU	1957	Left Front Midrange Speaker [-] Control	I	—
B	0.8	D-BU	1857	Left Front Midrange Speaker [+] Control	I	—

P19AH Speaker - Right Front Door



280768

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 12052832

Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

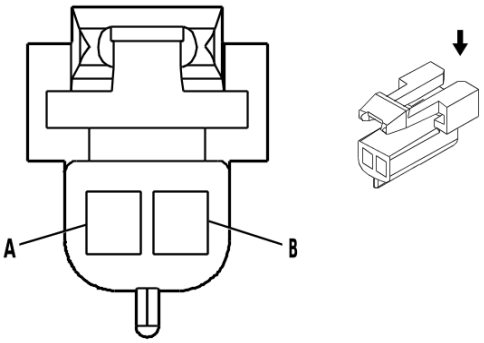
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19AH Speaker - Right Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-GN	1953	Right Front Midrange Speaker [-] Control	I	—
B	0.8	OG	1853	Right Front Midrange Speaker [+] Control	I	—

P19F Speaker - Left Rear Cargo Door



280768

Connector Part Information

Harness Type: Left Rear Cargo Door
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

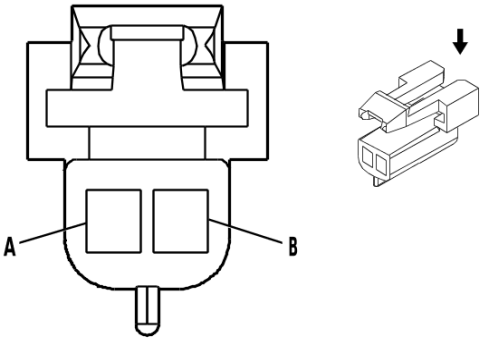
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19F Speaker - Left Rear Cargo Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	1959	Left Rear Midrange Speaker [-] Control	I	—
B	1	TN	1859	Left Rear Midrange Speaker [+] Control	I	—

P19LR Speaker - Left Rear Roof



280768

Connector Part Information

Harness Type: Rear Speaker
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

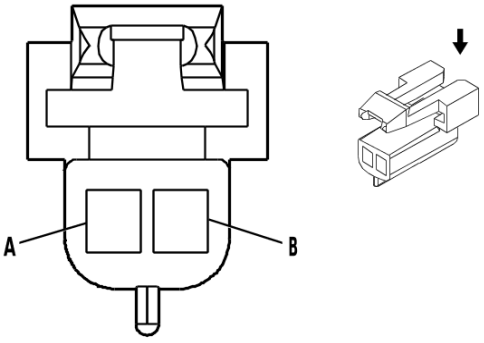
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19LR Speaker - Left Rear Roof

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	1959	Left Rear Midrange Speaker [-] Control	I	—
B	1	TN	1859	Left Rear Midrange Speaker [+] Control	I	—

P19RR Speaker - Right Rear Roof



280768

Connector Part Information

Harness Type: Rear Speaker
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

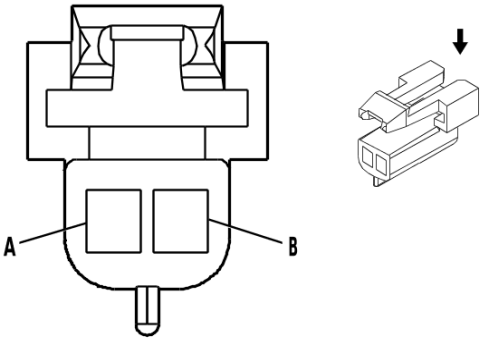
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19RR Speaker - Right Rear Roof

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	OG	1955	Right Rear Midrange Speaker [-] Control	I	—
B	1	TN	1855	Right Rear Midrange Speaker [+] Control	I	—

P19T Speaker - Right Rear Cargo Door



280768

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

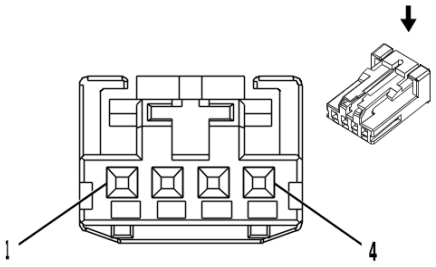
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19T Speaker - Right Rear Cargo Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	OG	1955	Right Rear Midrange Speaker [-] Control	I	—
B	1	TN	1855	Right Rear Midrange Speaker [+] Control	I	—

P43 Collision Alert Indicators



2717162

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13969166
Service Connector: 13587297
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

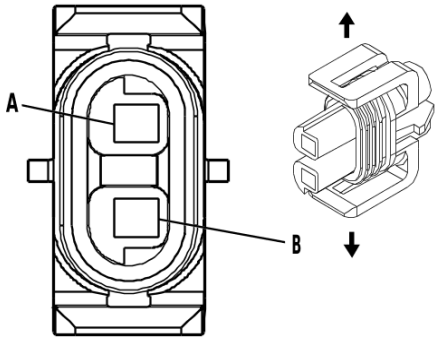
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

P43 Collision Alert Indicators

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BK	1639	Run/Crank Ignition 1 Voltage 16	I	—
2	0.35	GY/YE	3885	Forward Collision Alert LED Control	I	—
3	0.35	WH/L-GN	3535	Reflected LED Display Dimming Control	I	—
4	0.5	BK/WH	2151	Ground 21	I	—

Q2 A/C Compressor Clutch (-LWN)



684852

Connector Part Information

Harness Type: Engine
OEM Connector: 12162017

Service Connector: 12101937
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

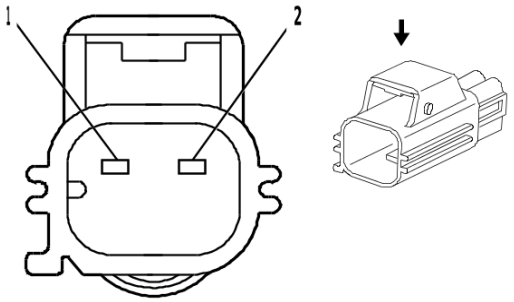
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

Q2 A/C Compressor Clutch (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BK	1250	Ground 12	I	—
B	0.5	BN/L-GN	59	A/C Compressor Clutch Control	I	—

Q2 A/C Compressor Clutch (LWN)



897985

Connector Part Information

Harness Type: Engine
OEM Connector: 15342400
Service Connector: 88953303
Description: 2-Way M YESC Weather Pack Series (BK)

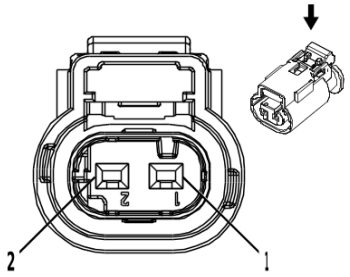
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required

Q2 A/C Compressor Clutch (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/L-GN	59	A/C Compressor Clutch Control	I	—
2	0.75	BK	1250	Ground 12	I	—

Q12 Evaporative Emission Purge Solenoid Valve



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

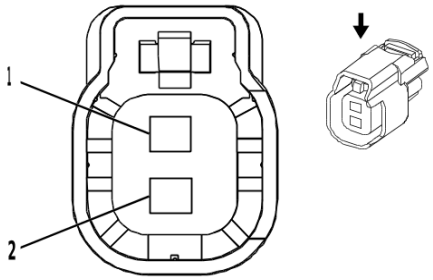
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

Q12 Evaporative Emission Purge Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/WH	1939	Run/Crank Ignition 1 Voltage 19	I	—
2	0.5	L-GN/BU	428	EVAP Purge Solenoid Valve Control	I	—

Q13 Evaporative Emission Vent Solenoid Valve



2422378

Connector Part Information

Harness Type: Chassis
OEM Connector: 13771883
Service Connector: 13579002
Description: 2-Way F 1.5 Series, Sealed (BK)

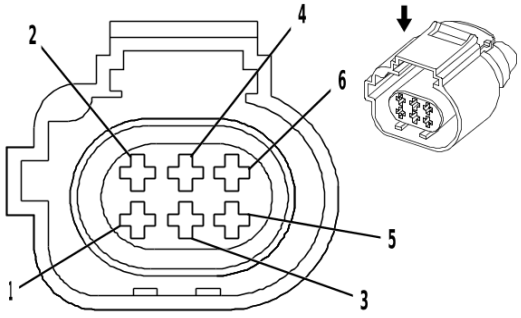
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

Q13 Evaporative Emission Vent Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1310	EVAP Vent Solenoid Valve Control	I	—
2	0.5	RD/L-GN	40	Secondary Fused Battery Positive Voltage	I	—

Q14 Exhaust Gas Recirculation Valve



2216905

Connector Part Information

Harness Type: Engine
OEM Connector: 10888948
Service Connector: 19368732
Description: 6-Way F 1.6 Micro-Timer Series, Sealed (BN)

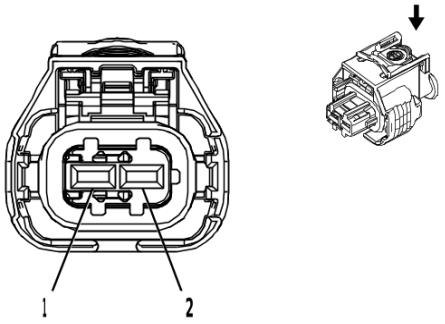
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

Q14 Exhaust Gas Recirculation Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/VT	5764	Exhaust Gas Recirculation Valve High Control	I	—
2	0.5	BN/WH	5763	Exhaust Gas Recirculation Position Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	BK/BN	2753	Exhaust Gas Recirculation Valve Position Sensor Low Reference	I	—
5	0.5	VT/BK	5746	Exhaust Gas Recirculation Valve Low Control	I	—
6	0.5	D-BU/RD	5047	Exhaust Gas Recirculation Valve Position Sensor 5V Reference 1	I	—

Q17A Fuel Injector 1



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 15546417
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

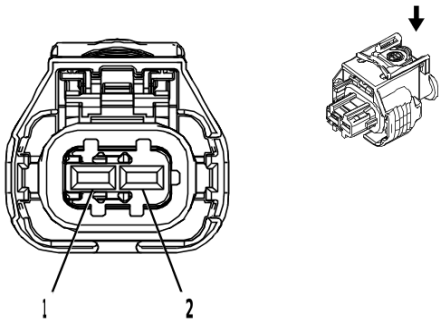
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q17A Fuel Injector 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BN/WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	I	—
2	1.5	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	I	—

Q17B Fuel Injector 2



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 15546417
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

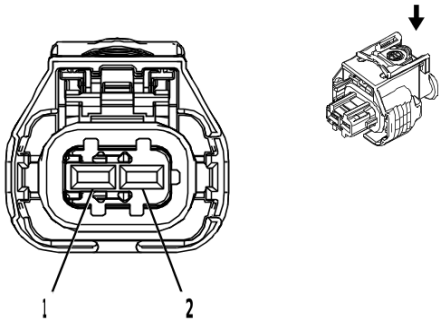
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q17B Fuel Injector 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	D-BU/GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	I	—
2	1.5	D-BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	I	—

Q17C Fuel Injector 3



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 15546417
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

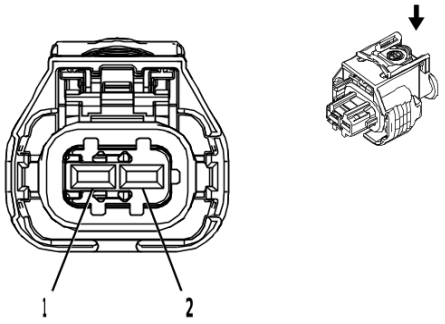
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q17C Fuel Injector 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	I	—
2	1.5	L-GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	I	—

Q17D Fuel Injector 4



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 15546417
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

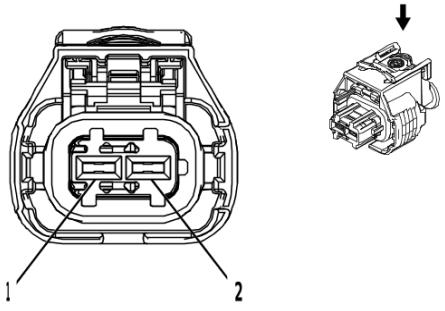
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q17D Fuel Injector 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	D-BU/WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	I	—
2	1.5	GY/BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	I	—

Q18A Fuel Pressure Regulator 1



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

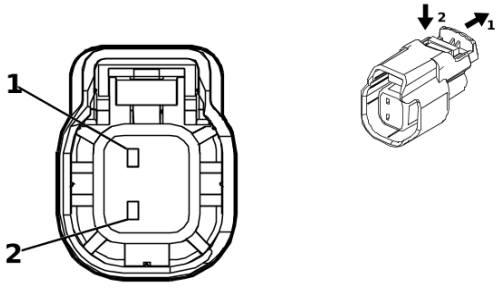
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q18A Fuel Pressure Regulator 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	2928	Fuel Metering Solenoid Valve High Control	I	—
2	0.5	BN/BK	2929	Fuel Metering Solenoid Valve Low Control	I	—

Q18B Fuel Pressure Regulator 2



3028817

Connector Part Information

Harness Type: Engine
OEM Connector: 13946568
Service Connector: 19352404
Description: 2-Way F 1.5 Series, Sealed (BK)

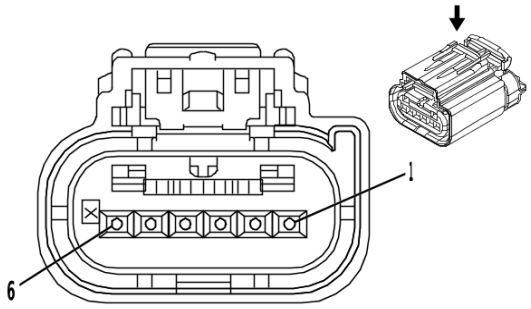
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

Q18B Fuel Pressure Regulator 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/WH	2530	Fuel Rail Pressure Solenoid Valve Control	I	—
2	0.5	BK/YE	2834	Fuel Rail Pressure Solenoid Valve Low Reference	I	—

Q20 Intake Air Flow Valve



2482433

Connector Part Information

Harness Type: Engine
OEM Connector: 13699991
Service Connector: 19352911
Description: 6-Way F 0.64 GET Series, Sealed (BK)

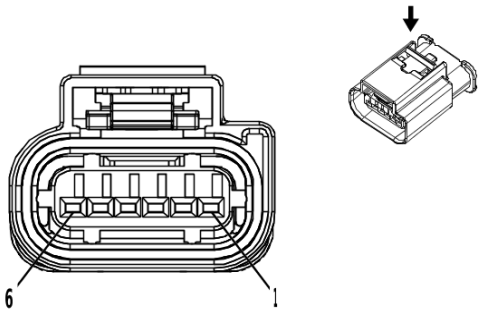
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

Q20 Intake Air Flow Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Open Control	I	—
2	0.5	BN/WH	582	Throttle Actuator Close Control	I	—
3	0.5	D-BU/WH	3630	Throttle Position Sensor SENT 1 Signal	I	—
4	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
5	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference 2	I	—
6	—	—	—	Not Occupied	—	—

Q38 Throttle Body



3747579

Connector Part Information

Harness Type: Engine
OEM Connector: 33220833
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

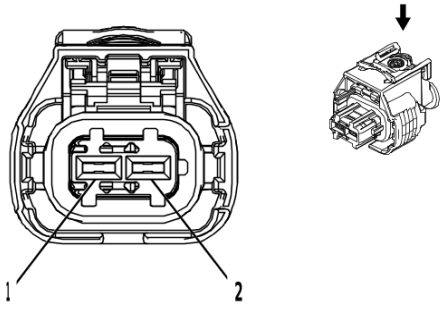
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

Q38 Throttle Body

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Open Control	I	—
2	0.5	BN/WH	582	Throttle Actuator Close Control	I	—
3	0.5	D-BU/WH	3630	Throttle Position Sensor SENT 1 Signal	I	—
4	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
5	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference 2	I	—
6	—	—	—	Not Occupied	—	—

Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

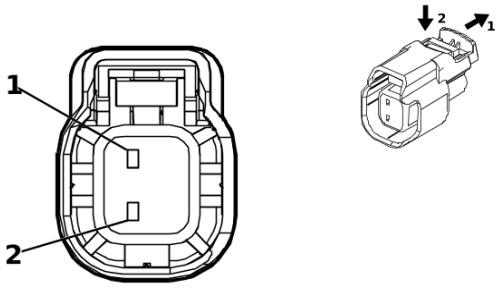
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BU	3231	Exhaust Gas Recirculation Cooler Bypass Solenoid Valve Control	I	—
2	0.5	GY/BU	3230	Exhaust Gas Recirculation Cooler Bypass Solenoid Valve Control	I	—

Q61 Reductant Injector



3028817

Connector Part Information

Harness Type: Engine
OEM Connector: 13946568
Service Connector: 19352404
Description: 2-Way F 1.5 Series, Sealed (BK)

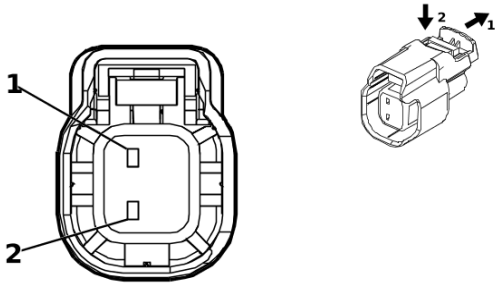
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

Q61 Reductant Injector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	3100	Diesel Exhaust Fluid Dosing Valve Low Control	I	—
2	0.5	BN	3099	Diesel Exhaust Fluid Dosing Valve High Control	I	—

Q67 Exhaust Aftertreatment Fuel Injector



3028817

Connector Part Information

Harness Type: Chassis
OEM Connector: 13820418
Service Connector: 13580230
Description: 2-Way F 1.5 Series, Sealed (BK)

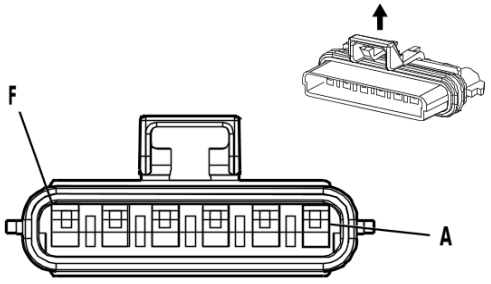
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

Q67 Exhaust Aftertreatment Fuel Injector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/BN	2927	Exhaust Aftertreatment Fuel Injector Low Control	I	—
2	0.75	BN/BU	2926	Exhaust Aftertreatment Fuel Injector High Control	I	—

R3 Blower Motor Resistor



535914

Connector Part Information

Harness Type: Engine
OEM Connector: 12160746
Service Connector: 15306007
Description: 6-Way F 280 Metri-Pack Flexlock Series, Sealed (L-GY)

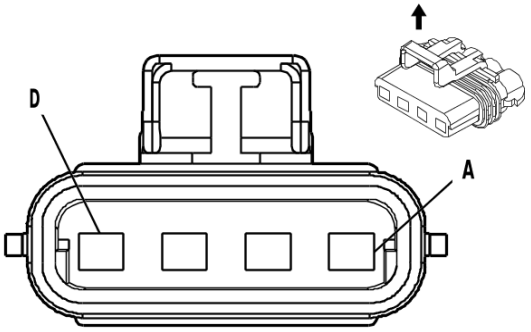
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

R3 Blower Motor Resistor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD/BK	542	Primary Fused Battery Positive Voltage 5	I	—
B	1	WH/BK	52	Blower Motor High Speed Control	I	—
C	4	BK	1250	Ground 12	I	LV1
	5	BK	1250	Ground 12	I	LWN
D	1	YE/BN	63	Blower Motor Medium Control 1	I	—
E	1	YE	60	Blower Motor Low Speed Control	I	—
F	2	D-BU/YE	72	Blower Motor Medium 2 Control	I	—

R3B Blower Motor Resistor - Auxiliary



697053

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129566
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 280 Metri-Pack Series, Sealed (GY)

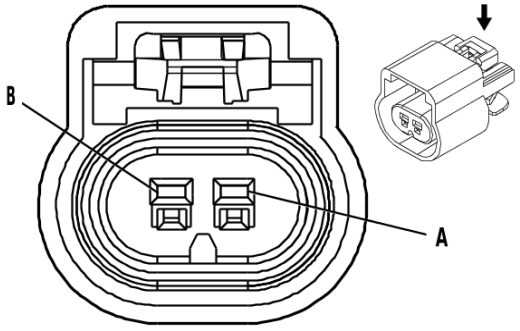
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

R3B Blower Motor Resistor - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	YE	1176	Auxiliary Blower Motor Low Speed Control	I	—
B	—	—	—	Not Occupied	—	—
C	3	L-BU	1072	Auxiliary Blower Motor Medium Speed Control	I	—
D	3	YE	1172	Auxiliary Blower Motor Control	I	—

R6A Terminating Resistor - High Speed Bus



523630

Connector Part Information

Harness Type: Engine
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

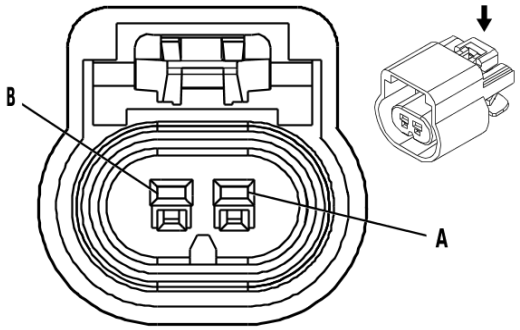
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

R6A Terminating Resistor - High Speed Bus

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
B	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—

R10 Cooling Fan Resistor



523630

Connector Part Information

Harness Type: Engine
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

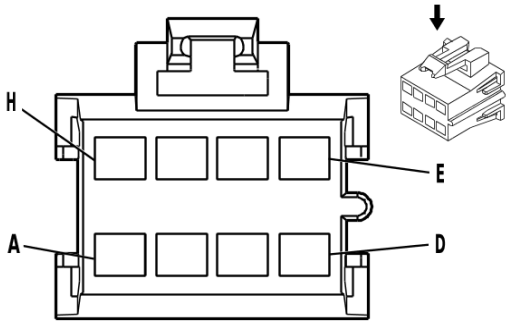
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

R10 Cooling Fan Resistor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY/RD	2365	Cooling Fan Speed Sensor 5V Reference	I	—
B	0.5	D-BU/VT	2364	Cooling Fan Speed Signal	I	—

S13A Door Lock Switch - Rear Cargo



62469

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 12064998
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series (BK)

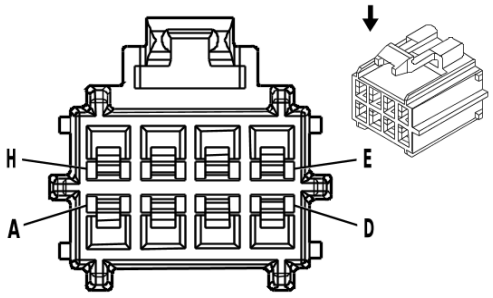
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S13A Door Lock Switch - Rear Cargo

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
B - C	—	—	—	Not Occupied	—	—
D	0.35	D-BU	245	Passenger Door Lock Switch Unlock Control	I	—
E	0.35	BK/WH	1051	Ground 10	I	—
F - H	—	—	—	Not Occupied	—	—

S13D Door Lock Switch - Driver



851474

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15418533
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series (L-GN)

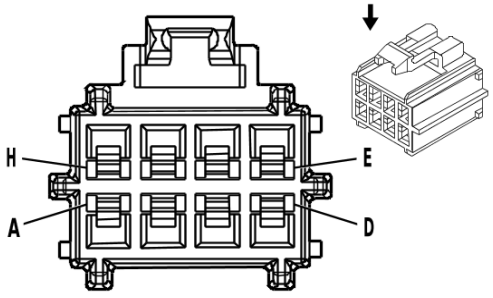
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S13D Door Lock Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	450	Ground 4	I	—
B	0.35	BK	450	Ground 4	I	—
C	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
D - E	—	—	—	Not Occupied	—	—
F	0.35	OG/BK	781	Driver Door Lock Switch Unlock Signal	I	—
G	0.35	PK/BK	780	Driver Door Lock Switch Lock Signal	I	—
H	—	—	—	Not Occupied	—	—

S13P Door Lock Switch - Passenger



851474

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15418533
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series (L-GN)

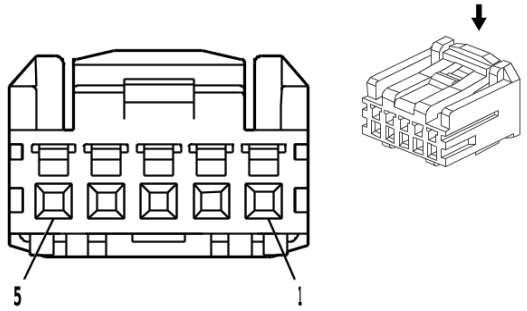
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S13P Door Lock Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground 18	I	—
B	0.35	BK	1850	Ground 18	I	—
C	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
D - E	—	—	—	Not Occupied	—	—
F	0.35	D-BU	245	Passenger Door Lock Switch Unlock Control	I	—
G	0.35	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
H	—	—	—	Not Occupied	—	—

S16 Driver Information Center Switch



1673494

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15491277
Service Connector: 88988747
Description: 5-Way F HCM Series (BK)

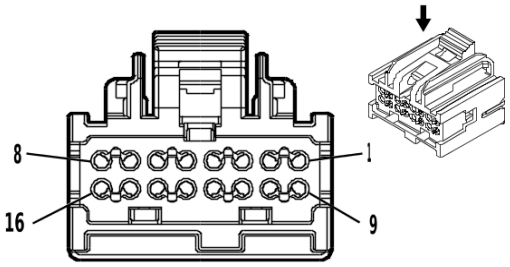
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

S16 Driver Information Center Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN/WH	1358	Driver Information Center Switch Signal	I	—
2	0.35	BN	897	Driver Information Center Switch Low Reference	I	—
3	0.35	PK	893	Driver Information Center Select Menu Switch Signal	I	—
4	0.5	YE	6817	LED Backlight Dimming Control 1	I	—
5	0.5	BK/WH	351	Ground 3	I	—

S30 Headlamp Switch



2127936

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13568238
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579976	J-35616-64B (LT BU)	J-38125-21
II	13582245	J-35616-64B (LT BU)	J-38125-21

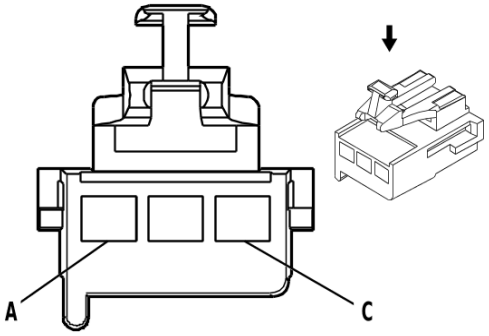
S30 Headlamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH	103	Headlamp Switch On Signal	II	—
2	0.35	L-BU	13	Headlamp Switch Park Lamp Signal	II	—
3	0.35	D-GN	306	Headlamp Switch Off Signal	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	II	—
8	0.5	BK/WH	351	Ground 3	I	—
9	0.35	PU	328	Dome/Reading Lamp Disable Switch Signal	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.35	D-BU/WH	149	Courtesy Lamp Control	II	—
13	0.35	D-GN	44	Instrument Panel Lamp Dimmer Switch Signal	II	—

S30 Headlamp Switch (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
14	—	—	—	Not Occupied	—	—
15	0.35	OG/WH	812	Dimmer Switch High Reference	II	—
16	—	—	—	Not Occupied	—	—

S34 HVAC Controls Switch Assembly X1



68737

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12129489
Service Connector: 19368864
Description: 3-Way F 280 Metri-Pack Flexlock Series (BK)

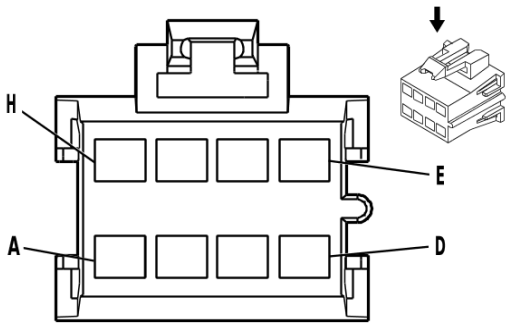
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	119	Mode Door Control	I	—
B	1	BK	550	Ground 5	I	—
C	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—

S34 HVAC Controls Switch Assembly X2



62469

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12064998
Service Connector: 15306189
Description: 8-Way F 280 Metri-Pack Series (BK)

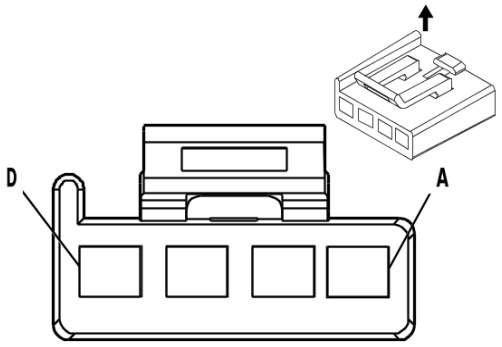
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	YE	60	Blower Motor Low Speed Control	I	—
B	0.8	TN	63	Blower Motor Medium Control 1	I	—
C	0.8	L-BU	72	Blower Motor Medium 2 Control	I	—
D	0.8	OG	52	Blower Motor High Speed Control	I	—
E	1	BN	141	Run Ignition 3 Voltage 1	I	—
F	0.8	L-BU	733	Air Temperature Door Position Signal	I	—
G	1	WH	119	Mode Door Control	I	—
H	0.5	D-GN/WH	762	A/C Request Signal 2	I	—

S34 HVAC Controls Switch Assembly X3



62450

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12052856
Service Connector: 12125636
Description: 4-Way F 280 Metri-Pack Series (BK)

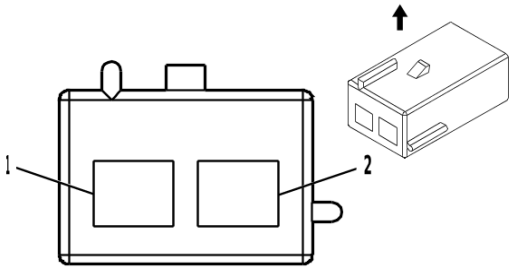
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	RD/WH	4440	Secondary Fused Battery Positive Voltage 44	I	—
B	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
C	1	BK	550	Ground 5	I	—
D	0.35	WH	193	Rear Defogger Relay Control	I	—

S34 HVAC Controls Switch Assembly X4



1283895

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15318080
Service Connector: 21019410
Description: 2-Way F 280 Metri-Pack Series (BK)

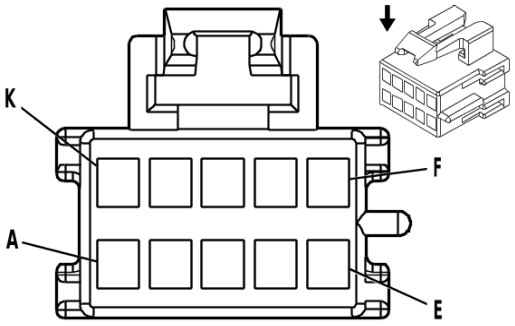
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	66	A/C Request Signal	I	—
2	0.5	D-GN/WH	762	A/C Request Signal 2	I	—

S34F HVAC Controls Switch Assembly - Auxiliary Front (-Rear HVAC Control)



803688

Connector Part Information

Harness Type: Headliner
OEM Connector: 12064871
Service Connector: 12101832
Description: 10-Way F 150 Metri-Pack Series (BU)

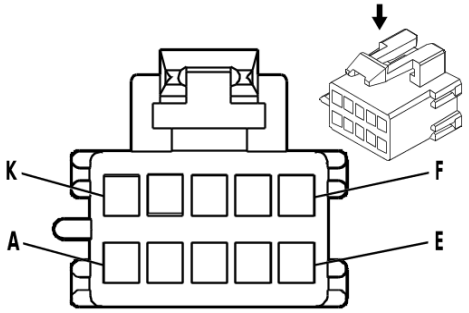
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575464	J-35616-14 (GN)	J-38125-12A

S34F HVAC Controls Switch Assembly - Auxiliary Front (-Rear HVAC Control)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	1850	Ground 18	I	—
C	0.5	D-BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	0.35	BK	1850	Ground 18	I	—
G	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
H	0.35	OG	2775	Rear Air Temperature Door Actuator Control	I	—
J	0.35	GY	2599	Rear Mode Door Actuator Signal	I	—
K	—	—	—	Not Occupied	—	—

S34F HVAC Controls Switch Assembly - Auxiliary Front (Rear HVAC Control)



62464

Connector Part Information

Harness Type: Headliner
OEM Connector: 12064769
Service Connector: 12101762
Description: 10-Way F 150 Metri-Pack Series (NA)

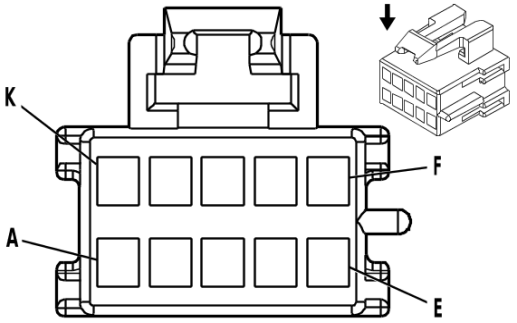
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575464	J-35616-14 (GN)	J-38125-12A

S34F HVAC Controls Switch Assembly - Auxiliary Front (Rear HVAC Control)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	1850	Ground 18	I	—
C	0.5	D-BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	0.35	YE	5262	Auxiliary HVAC Rear Controls Enable Signal	I	—
G	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
H	0.35	PU	5260	Auxiliary HVAC Front Temperature Signal	I	—
J	0.35	TN	5261	Auxiliary HVAC Front Mode Signal	I	—
K	—	—	—	Not Occupied	—	—

S34R HVAC Controls Switch Assembly - Auxiliary Rear



803688

Connector Part Information

Harness Type: Headliner
OEM Connector: 12064871
Service Connector: 12101832
Description: 10-Way F 150 Metri-Pack Series (BU)

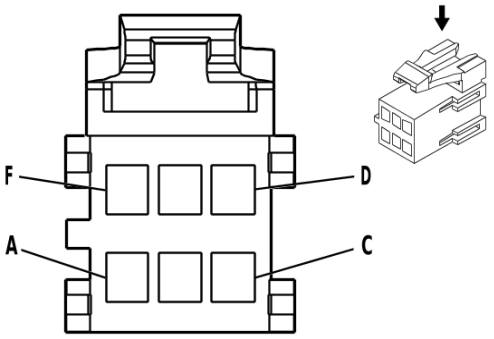
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575464	J-35616-14 (GN)	J-38125-12A

S34R HVAC Controls Switch Assembly - Auxiliary Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.5	BK	1050	Ground 10	I	—
C	0.5	D-BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	0.5	PK/BK	5265	Auxiliary HVAC Rear Control Signal	I	—
G	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
H	0.5	BN	5263	Auxiliary HVAC Rear Temperature Signal	I	—
J	0.5	PU/WH	5264	Auxiliary HVAC Rear Mode Signal	I	—
K	—	—	—	Not Occupied	—	—

S40 Passenger Air Bag Disable Switch



362753

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15305286
Service Connector: 15306014
Description: 6-Way F 150 Metri-Pack Series (YE)

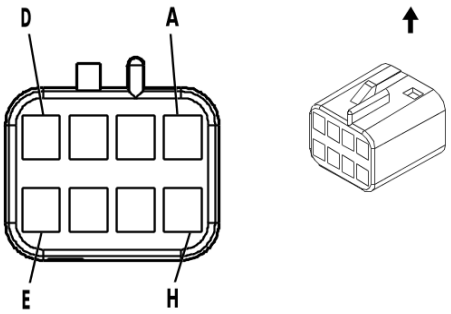
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

S40 Passenger Air Bag Disable Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	TN/BK	371	Passenger Supplemental Inflatable Restraint Disable Switch Signal	I	—
B	0.35	PK	1139	Run/Crank Ignition 1 Voltage 11	I	—
C	0.35	D-BU	2307	Passenger Air Bag On Indicator Control	I	—
D	0.5	PK	353	Passenger Supplemental Inflatable Restraint Suppression Indicator Control	I	—
E	0.5	BK/WH	1751	Ground 17	I	—
F	0.35	D-GN	2308	Passenger Air Bag Off Indicator Control	I	—

S51 Telematics Button Assembly



62439

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047886
Service Connector: 13584485
Description: 8-Way F 150 Metri-Pack Series (BK)

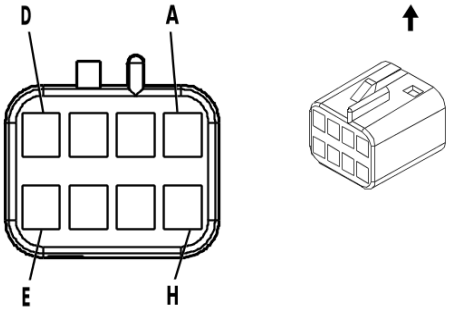
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

S51 Telematics Button Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	L-GN/BK	2515	Keypad Control	I	—
B	0.8	D-GN/WH	2514	Keypad Signal	I	—
C - D	—	—	—	Not Occupied	—	—
E	1	BK/WH	351	Ground 3	I	—
F	0.8	YE/BK	2516	Keypad Green LED Control	I	—
G	0.8	BN/WH	2517	Keypad Red LED Control	I	—
H	—	—	—	Not Occupied	—	—

S52 Outside Rearview Mirror Switch



62439

Connector Part Information

Harness Type: Driver Door
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

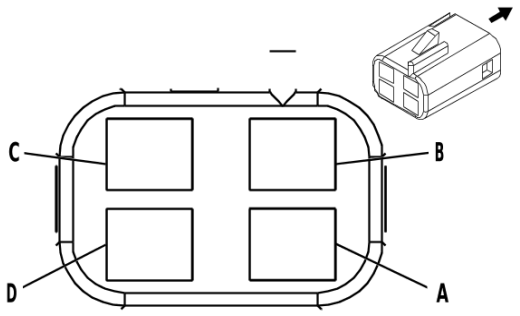
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

S52 Outside Rearview Mirror Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	OG/WH	881	Right Outside Rearview Mirror Motor Right Control	I	—
B	0.35	PU/WH	889	Right Outside Rearview Mirror Motor Down Control	I	—
C	0.35	BN/WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—
D	0.5	BK	450	Ground 4	I	—
E	0.5	RD/WH	4340	Secondary Fused Battery Positive Voltage 43	I	—
F	0.35	L-GN	89	Left Outside Rearview Mirror Motor Down Control	I	—
G	0.35	WH	81	Left Outside Rearview Mirror Motor Right Control	I	—
H	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—

S74 Tow/Haul Mode Switch



39660

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047785
Service Connector: 12102900
Description: 4-Way F 150 Metri-Pack Series (BK)

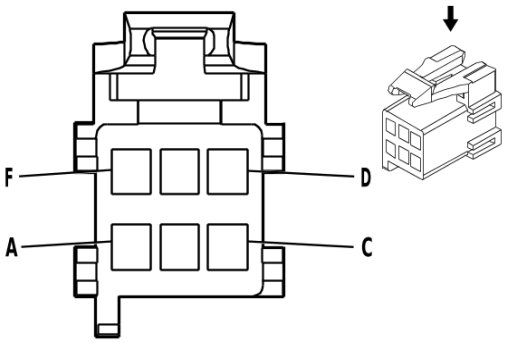
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

S74 Tow/Haul Mode Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK/WH	351	Ground 3	I	—
B	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	L-BU	1788	Traction Control Switch Signal 1	I	—

S75 Traction Control Switch



304345

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12177195
Service Connector: 15305931
Description: 6-Way F 150 Metri-Pack Series (BK)

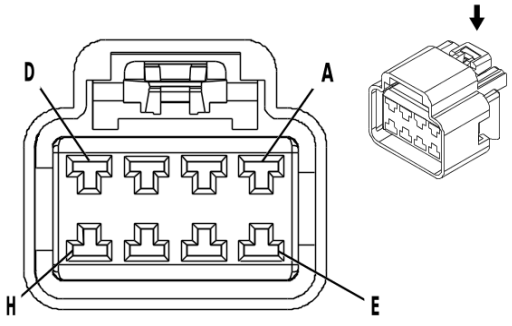
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

S75 Traction Control Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	0.35	BK/WH	351	Ground 3	I	—
D	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
E	—	—	—	Not Occupied	—	—
F	0.5	D-BU	6727	Vehicle Stability Control Switch Signal	I	—

S79D Window Switch - Driver



556473

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15459914

Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series (BK)

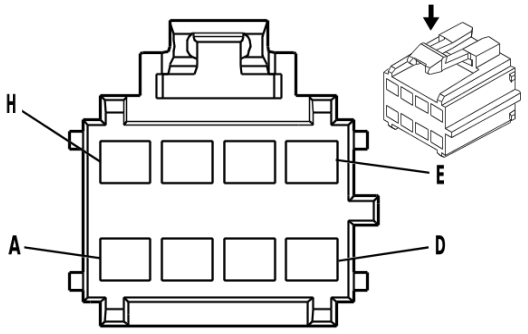
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S79D Window Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	L-BU	166	Right Front Window Up Switch Main Control Signal	I	—
B	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
C	3	D-GN	1001	Retained Accessory Power Control 2	I	—
D	3	TN	167	Right Front Window Down Switch Main Control Signal	I	—
E	—	—	—	Not Occupied	—	—
F	3	BK	450	Ground 4	I	—
G	3	D-BU	164	Left Front Window Motor Up Control	I	—
H	3	BN	165	Window Motor Left Front Down Control	I	—

S79P Window Switch - Passenger



333036

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 12191825
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series (BN)

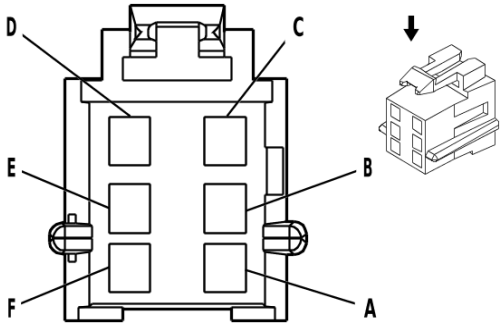
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S79P Window Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	D-GN	1001	Retained Accessory Power Control 2	I	—
B	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
C	0.35	BK	1850	Ground 18	I	—
D	3	TN	167	Right Front Window Down Switch Main Control Signal	I	—
E	—	—	—	Not Occupied	—	—
F	3	BN	667	Right Front Window Motor Down Control	I	—
G	3	D-BU	666	Right Front Window Motor Up Control	I	—
H	3	L-BU	166	Right Front Window Up Switch Main Control Signal	I	—

S85 Auxiliary Blower Motor Switch



62456

Connector Part Information

Harness Type: Auxiliary Heater Front
OEM Connector: 12064752
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series (BK)

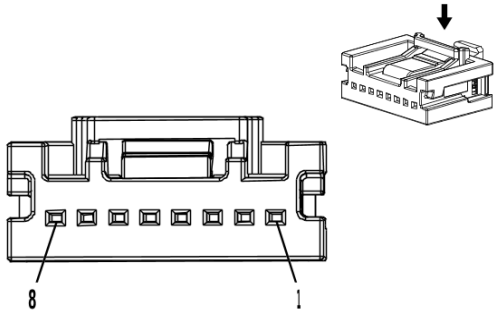
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S85 Auxiliary Blower Motor Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	450	Ground 4	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.35	D-BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
F	0.35	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—

S155 Lane Departure Warning Switch



4017639

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33227522
Service Connector: 19354223
Description: 8-Way F Mini 50 Series (BK)

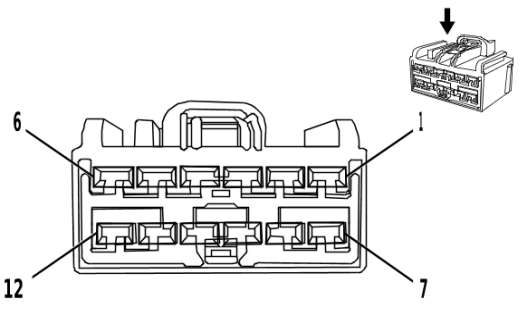
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	EL-35616-58 (BK)	No Tool Required

S155 Lane Departure Warning Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/GY	1382	LED Dimming Signal	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	—
5	0.35	WH	6816	Indicator Dimming Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	WH	3152	Lane Departure Warning Indicator Control	I	—
8	0.35	BK/WH	2151	Ground 21	I	—

T1 Accessory DC/AC Power Inverter Module



2231648

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846814
Service Connector: 13518424
Description: 12-Way F 2.8 Kaizen Series (L-GY)

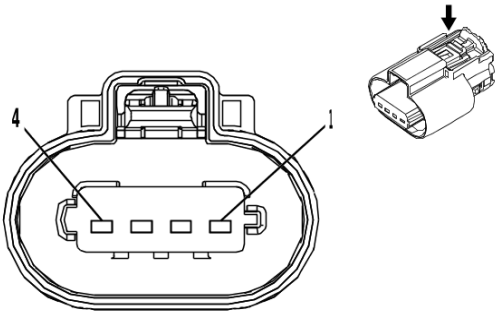
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300649	J-35616-4A (PU)	J-38125-215A
II	19301752	J-35616-4A (PU)	J-38125-215A
III	19301761	J-35616-4A (PU)	J-38125-215A

T1 Accessory DC/AC Power Inverter Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	1	BK	5683	120V AC Phase A	III	—
3 - 5	—	—	—	Not Occupied	—	—
6	3	RD/WH	4140	Secondary Fused Battery Positive Voltage 41	II	—
7	1	WH	5685	120V AC Neutral	III	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	Bare	514	Low Reference	I	—
11	3	BK	550	Ground 5	II	—
12	0.35	D-GN	2266	DC/AC Inverter Control 2	I	—

T8A Ignition Coil 1



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

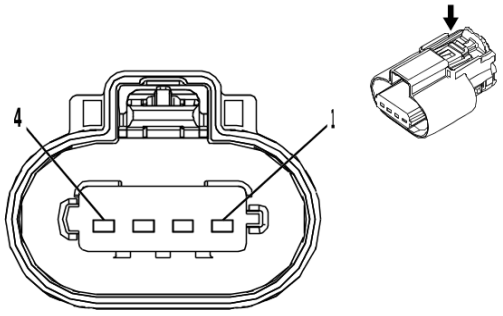
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8A Ignition Coil 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	D-BU/VT	2121	Ignition Control 1	I	—
4	0.75 0.75	VT/BU VT/GY	5291 1039	Powertrain Main Relay Fused Supply 2 Run/Crank Ignition 1 Voltage 10	I I	L8T LV1

T8B Ignition Coil 2



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

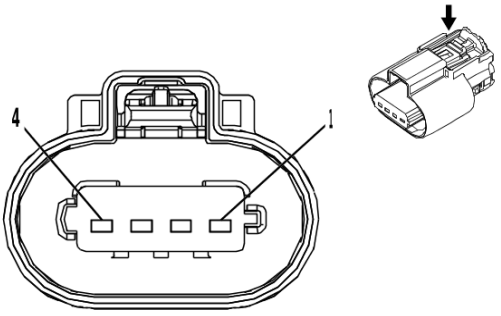
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8B Ignition Coil 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	D-BU/WH	2122	Ignition Control 2	I	—
4	0.75 0.75	VT/BU VT/BK	5292 1239	Powertrain Main Relay Fused Supply 3 Run/Crank Ignition 1 Voltage 12	I I	L8T LV1

T8C Ignition Coil 3



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

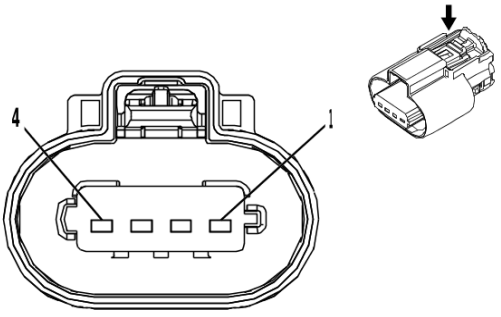
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8C Ignition Coil 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	L-GN/BU	2123	Ignition Control 3	I	—
4	0.75 0.75	VT/BU VT/GY	5291 1039	Powertrain Main Relay Fused Supply 2 Run/Crank Ignition 1 Voltage 10	I I	L8T LV1

T8D Ignition Coil 4



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211

Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

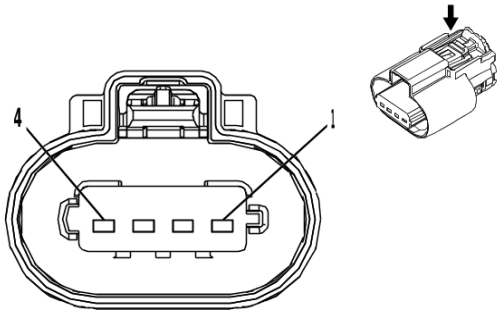
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8D Ignition Coil 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	YE/BU	2124	Ignition Control 4	I	—
4	0.75 0.75	VT/BU VT/BK	5292 1239	Powertrain Main Relay Fused Supply 3 Run/Crank Ignition 1 Voltage 12	I I	L8T LV1

T8E Ignition Coil 5



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

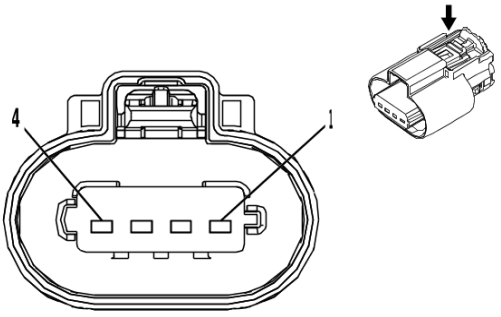
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8E Ignition Coil 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	D-BU/GY	2125	Ignition Control 5	I	—
4	0.75 0.75	VT/BU VT/GY	5291 1039	Powertrain Main Relay Fused Supply 2 Run/Crank Ignition 1 Voltage 10	I I	L8T LV1

T8F Ignition Coil 6



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

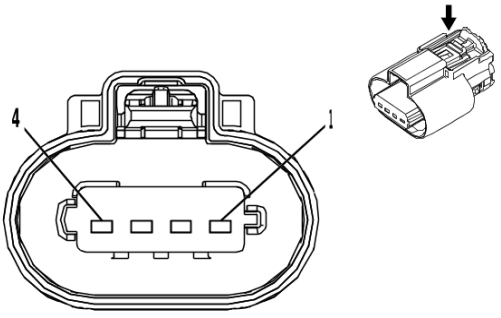
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8F Ignition Coil 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	BN/BU	2126	Ignition Control 6	I	—
4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	L8T
	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage 12	I	LV1

T8G Ignition Coil 7



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

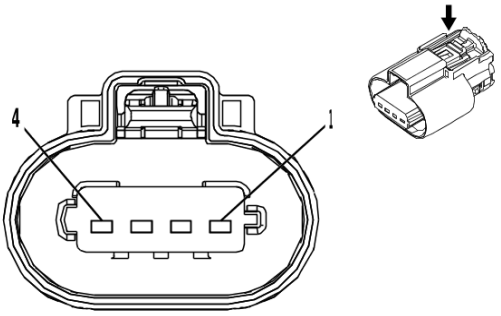
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8G Ignition Coil 7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	L-GN/GY	2127	Ignition Control 7	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8H Ignition Coil 8



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

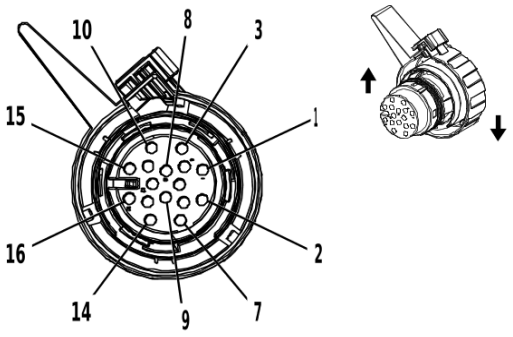
T8H Ignition Coil 8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	VT/WH	2128	Ignition Control 8	I	—

T8H Ignition Coil 8 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—

T12 Automatic Transmission Assembly



3277917

Connector Part Information

Harness Type: Engine
OEM Connector: 13878751
Service Connector: 19303772
Description: 16-Way F 1.5 LKS Series, Sealed (BK)

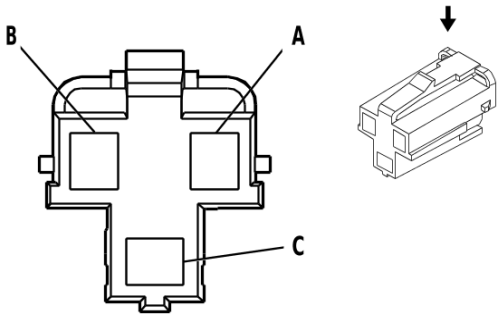
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575434	J-35616-66 (YE)	J-38125-28

T12 Automatic Transmission Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
4	0.5	RD/L-GN	1840	Secondary Fused Battery Positive Voltage 18	I	—
5	0.75	BK/WH	1551	Ground 15	I	—
6	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
9	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	I	—
10	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
11	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
12	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage 21	I	—
13	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
14	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
15	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
16	0.5	BN/VT	6399	Replicated Transmission Output Speed Signal	I	—

X80A Accessory Power Receptacle - Center Console 1



362748

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19369634
Description: 3-Way F 280 Metri-Pack Series (GY)

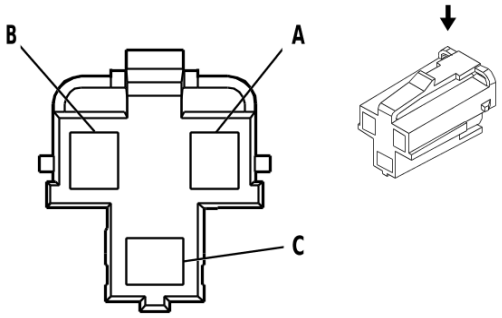
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

X80A Accessory Power Receptacle - Center Console 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	RD/WH	640	Secondary Fused Battery Positive Voltage 6	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	550	Ground 5	I	—

X80B Accessory Power Receptacle - Center Console 2



362748

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19369634
Description: 3-Way F 280 Metri-Pack Series (GY)

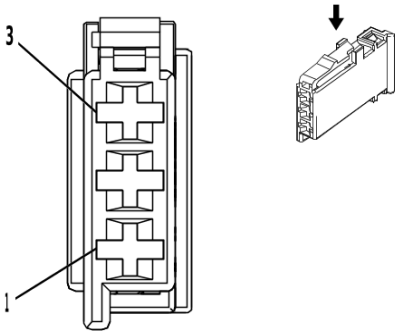
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

X80B Accessory Power Receptacle - Center Console 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	RD/WH	1040	Secondary Fused Battery Positive Voltage 10	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	550	Ground 5	I	—

X81 Accessory Power Receptacle - 110V AC X1



2039656

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10865339
Service Connector: 93186706
Description: 3-Way F 1.6 Micro-Timer Series (BK)

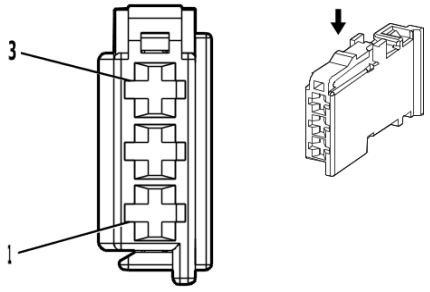
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

X81 Accessory Power Receptacle - 110V AC X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU	6807	DC/AC Inverter Control	I	—
2	—	—	—	Not Occupied	—	—
3	1	BK	5683	120V AC Phase A	I	—

X81 Accessory Power Receptacle - 110V AC X2



2236412

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13648774
Service Connector: 19367740
Description: 3-Way F 1.6 Timer Series, Sealed (GY)

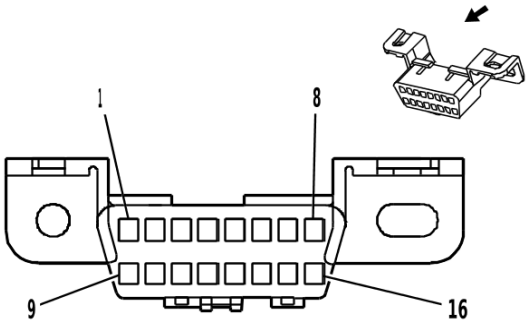
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

X81 Accessory Power Receptacle - 110V AC X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN	2266	DC/AC Inverter Control 2	I	—
2	—	—	—	Not Occupied	—	—
3	1	WH	5685	120V AC Neutral	I	—

X84 Data Link Connector



68793

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12110250
Service Connector: 12110250
Description: 16-Way F 150 Metri-Pack Series (BK)

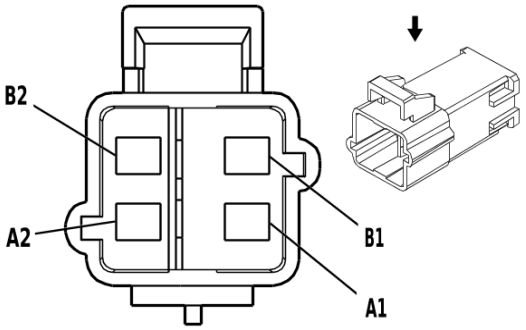
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575724	J-35616-14 (GN)	J-38125-12A
II	13580059	J-35616-14 (GN)	J-38125-12A

X84 Data Link Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BK/WH	351	Ground 3	II	—
5	0.5	BK/WH	351	Ground 3	II	—
6	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
7 - 13	—	—	—	Not Occupied	—	—
14	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
15	—	—	—	Not Occupied	—	—
16	0.8	RD/WH	640	Secondary Fused Battery Positive Voltage 6	II	—

X85 Steering Wheel Air Bag Coil X3



684931

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15336476
Service Connector: 88987998
Description: 4-Way M 280 Metri-Pack Series (YE)

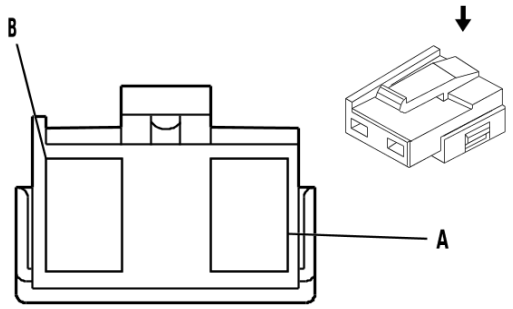
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-5 (PU)	No Tool Required

X85 Steering Wheel Air Bag Coil X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	TN	3021	Steering Wheel Air Bag Stage 1 High Control	I	—
A2	0.5	BN	3020	Steering Wheel Air Bag Stage 1 Low Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—

X87RB Sliding Door Jamb Contact Plate - Right Body (Body)



38274

Connector Part Information

Harness Type: Body
OEM Connector: 12034343
Service Connector: 12101821
Description: 2-Way F 280 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

X87RB Sliding Door Jamb Contact Plate - Right Body (Body)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

X87RB Sliding Door Jamb Contact Plate - Right Body (Sliding Door)

—

Connector Part Information

Harness Type: Sliding Door
OEM Connector: 33148350
Service Connector: Service by Harness - See Part Catalog
Description: Contact Plate

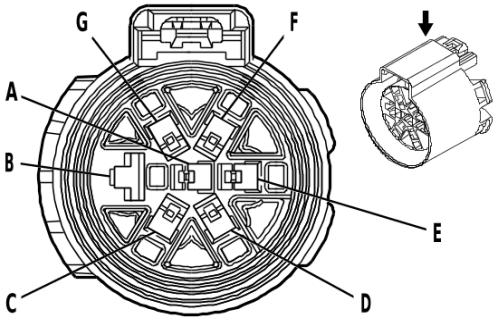
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required

X87RB Sliding Door Jamb Contact Plate - Right Body (Sliding Door)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

X88 Trailer Connector (-NE7)



2056936

Connector Part Information

Harness Type: Chassis
OEM Connector: 13857223
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required
II	Not Required	J-35616-4A (PU)	No Tool Required

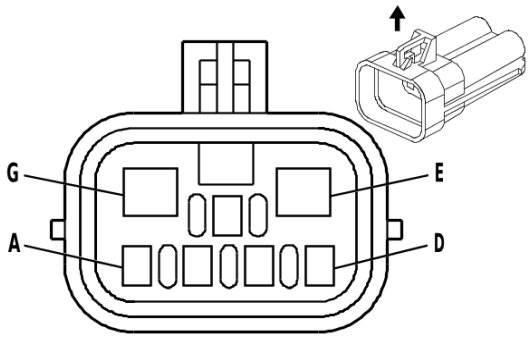
X88 Trailer Connector (-NE7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	L-GN	1624	Trailer Backup Lamp Control	II	—

X88 Trailer Connector (-NE7) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
B	8	WH	22	Trailer Ground	I	—
C	3	D-BU	47	Trailer Auxiliary Control	II	—
D	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	3	RD/BK	742	Primary Fused Battery Positive Voltage 7	II	—
F	1	BN	2109	Trailer Park Lamp Control	II	—
G	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X88 Trailer Connector (NE7)



1372292

Connector Part Information

Harness Type: Chassis
OEM Connector: 12052200
Service Connector: 19299890
Description: 7-Way M 150, 480 Metri-Pack Series, Sealed (BK)

Terminal Part Information

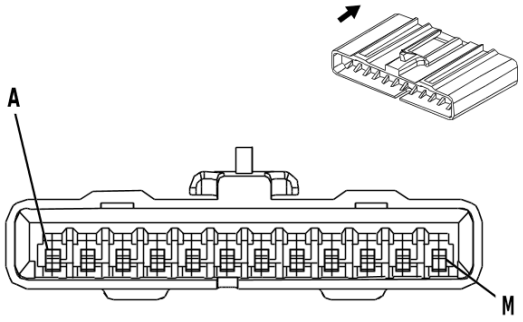
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required
II	Not Required	J-35616-41 (BU)	No Tool Required

X88 Trailer Connector (NE7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	L-GN	1624	Trailer Backup Lamp Control	I	—
B	1	BN	2109	Trailer Park Lamp Control	I	—
C	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	I	—
D	—	—	—	Not Occupied	—	—
E	3	D-BU	47	Trailer Auxiliary Control	II	—
F	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	I	—
G	3	RD/BK	742	Primary Fused Battery Positive Voltage 7	II	—

Splice Pack Connector End Views

JX200 Splice Pack



966355

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176461
Service Connector: 15305914
Description: 12-Way F 150 GT Series (BK)

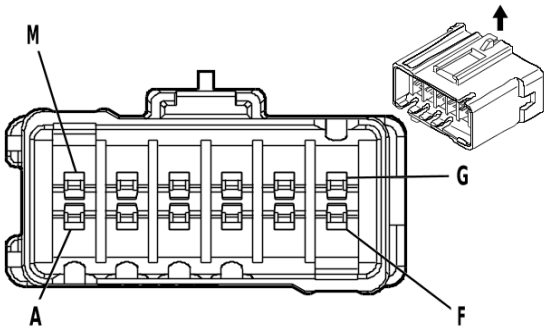
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A

JX200 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
B	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
C	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
D	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
E	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
F	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
G	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
H	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
J	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	—
K	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	—
L	0.5	D-GN	5060	Low Speed GMLAN Serial Data	I	—
M	0.5	D-GN	5060	Low Speed GMLAN Serial Data	I	—

JX250 Splice Pack



803605

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15305288
Service Connector: 12167610
Description: 12-Way F 280 Metri-Pack Series (BK)

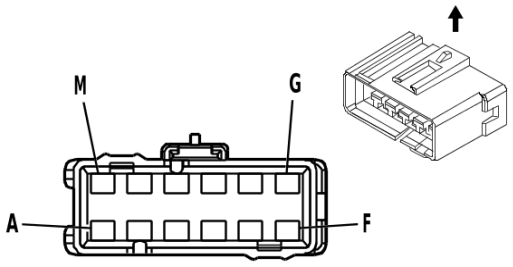
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575721	J-35616-4A (PU)	J-38125-553

JX250 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
B	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
C	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
D - J	—	—	—	Not Occupied	—	—
K	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
L	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
M	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—

JX347 Splice Pack



365987

Connector Part Information

Harness Type: Body
OEM Connector: 12191928
Service Connector: 88986418
Description: 12-Way F 280 Metri-Pack Series (BK)

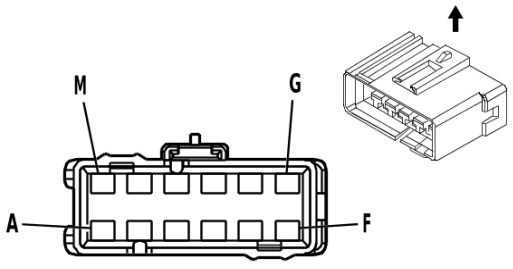
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575721	J-35616-4A (PU)	J-38125-553
II	13579958	J-35616-4A (PU)	J-38125-11A
III	19330177	J-35616-4A (PU)	J-38125-11A

JX347 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	450	Ground 4	I	—
B - C	—	—	—	Not Occupied	—	—
D	5	BK	450	Ground 4	II	—
E	3	BK	450	Ground 4	III	—
F	3	BK	450	Ground 4	III	—
G	0.5	BK	450	Ground 4	I	—
H	5	BK	450	Ground 4	II	—
J	0.5	BK	450	Ground 4	I	—
K	0.5	BK	450	Ground 4	I	—
L	—	—	—	Not Occupied	—	—
M	0.35	BK	450	Ground 4	I	—

JX348 Splice Pack



365987

Connector Part Information

Harness Type: Body
OEM Connector: 12191928
Service Connector: 88986418
Description: 12-Way F 280 Metri-Pack Series (BK)

Terminal Part Information

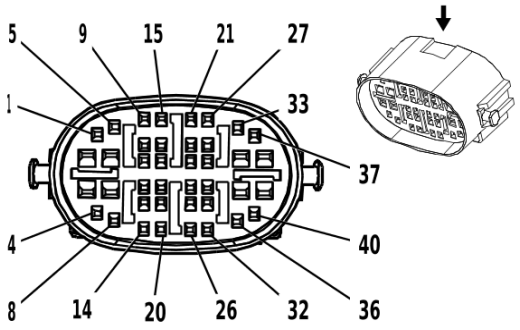
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575721	J-35616-4A (PU)	J-38125-553
II	19330177	J-35616-4A (PU)	J-38125-11A

JX348 Splice Pack

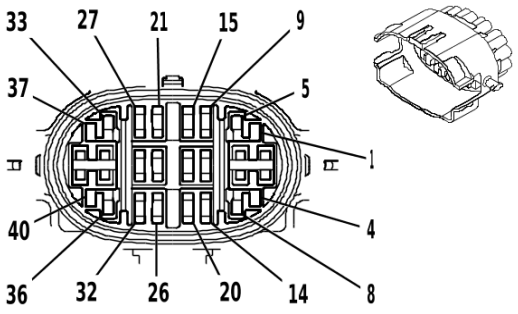
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground 18	I	—
B	0.8	BK	1850	Ground 18	I	—
C	3	BK	1850	Ground 18	II	—
D	0.35	BK	1850	Ground 18	I	—
E	—	—	—	Not Occupied	—	—
F	0.5	BK	1850	Ground 18	I	—
G	0.5	BK/WH	2751	Ground 27	I	—
H	—	—	—	Not Occupied	—	—
J	1	BK	1850	Ground 18	I	—
K - M	—	—	—	Not Occupied	—	—

Inline Harness Connector End Views

X100 Instrument Panel Harness to Engine Harness



1713502



1713503

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13601803
Service Connector: 19166997
Description: 40-Way F 150, 280 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 13605375
Service Connector: 19169297
Description: 40-Way M 150, 280 GT Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575396	J-35616-14 (GN)	J-38125-215A
II	13575412	J-35616-14 (GN)	J-38125-215A
III	13575412	J-35616-4A (PU)	J-38125-215A
IV	13576360	J-35616-4A (PU)	J-38125-215A
V	13576407	J-35616-4A (PU)	J-38125-215A
VI	13580824	J-35616-4A (PU)	J-38125-215A

Terminal Part Information (cont'd)

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
VII	13580824	J-35616-4A (PU)	J-38125-553
VIII	13575353	J-35616-5 (PU)	J-38125-215A
IX	13575443	J-35616-5 (PU)	J-38125-215A
X	13576364	J-35616-3 (GY)	J-38125-215A
XI	13580826	J-35616-5 (PU)	J-38125-215A
XII	19368625	J-35616-3 (GY)	J-38125-215A

X100 Instrument Panel Harness to Engine Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	WH/ BU	6311	IV	—	Cruise/ETC/ TCC Brake Signal	1	0.5	WH/ BU	6311	X	—
2	0.8	OG	52	VI	—	Blower Motor High Speed Control	2	1	WH/ BK	52	XI	—
3	0.8	BU	72	VI	—	Blower Motor Medium 2 Control	3	2	BU/ YE	72	IX	—
4	0.5	OG	1732	III	—	Control Module 12V Reference 3	4	0.5	VT/ RD	1732	X	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.8	TN	63	VI	—	Blower Motor Medium Control 1	6	1	YE/ BN	63	XI	—
7	2	BK	1250	V	—	Ground 12	7	2	BK	1250	IX	—
8	0.8	YE	60	II	—	Blower Motor Low Speed Control	8	1	YE	60	X	—
9	0.5	GN/ BN	507	III	—	Wait To Start Indicator Control	9	0.5	GN/ BN	507	X	—
10 - 11	—	—	—	—	—	Not Occupied	10 - 11	—	—	—	—	—
12	0.5	GN	1478	III	—	Coolant Level Switch Signal	12	0.5	GN/ YE	1478	X	—
13	0.5	BK/ WH	351	III	—	Ground 3	13	0.5	BK/ WH	351	X	—
14	0.5	GN	66	III	—	A/C Request Signal A/C Request Signal	14	0.5 0.5	BN BN/ WH	66 66	X X	— —
15	0.5	WH/ BU	5986	III	—	Serial Data Communication Enable	15	0.5	WH/ BU	5986	X	—
16	0.5	GN	66	III	—	A/C Request Signal	16	0.5	BN/ WH	66	X	—
17	0.75	GN/ GY	333	II	—	Brake Fluid Level Switch Signal	17	0.75	GN/ GY	333	X	—
18	0.5	BN/ WH	419	III	—	Check Engine Indicator Control	18	0.5	BN/ WH	419	X	—
19	0.5	BU	5985	III	—	Accessory Wake-Up Serial Data	19	0.5	VT/ YE	5985	X	—

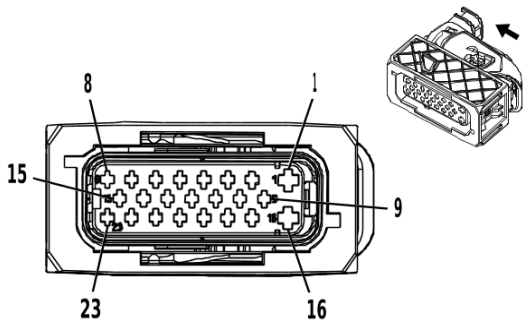
X100 Instrument Panel Harness to Engine Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.35	BK/ BU	1271	I	—	Accelerator Pedal Position Low Reference 1	21	0.5	BK/ BU	1271	XII	—
22	0.35	WH/ RD	1164	I	—	Accelerator Pedal Position 5 Volt Reference 1	22	0.5	WH/ RD	1164	XII	—
23	0.35	BN/ RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	23	0.5	BN/ RD	1274	XII	—
24	0.5	BK/ WH	451	III	—	Ground 4	24	0.75	BK/ WH	451	X	—
25	0.5	WH	5075	III	—	Current Sensor Signal	25	0.5	WH/ YE	5075	X	—
26	0.5	BN	5077	III	—	Current Sensor Low Reference	26	0.5	BK/ VT	5077	X	—
27	0.35	YE/ WH	1161	I	—	Accelerator Pedal Position Signal 1	27	0.5	YE/ WH	1161	XII	—
28	0.35	BK/ VT	1272	I	—	Accelerator Pedal Position Low Reference 2	28	0.5	BK/ VT	1272	XII	—
29	0.35	GN/ WH	1162	I	—	Accelerator Pedal Position Signal 2	29	0.5	GN/ WH	1162	XII	—
30	0.5	PK	5076	III	—	Current Sensor Voltage Reference	30	0.5	BU/ VT	5076	X	—
31	1	RD/ WH	440	II	—	Secondary Fused Battery Positive Voltage 4	31	—	—	—	—	—
32	—	—	—	—	—	Not Occupied	32	—	—	—	—	—
33	0.5	BU	2500	III	—	High Speed GMLAN Serial Data [+] 1	33	0.5	BU	2500	X	—
34	0.5	BK/ YE	407	VII	—	Engine Control Sensors Low Reference 2 Sensor Low Reference	34	0.5 0.5	BK/ GN BK/ YE	580 407	VIII VIII	— —
35	0.5	GN/ BK	735	VII	—	Ambient Air Temperature Sensor Signal Ambient Air Temperature Sensor Signal 2	35	0.5 0.5	BU/ GY GN/ BK	636 735	VIII VIII	— —
36	0.5	BU	2500	III	—	High Speed GMLAN Serial Data [+] 1	36	0.5	BU	2500	X	—
37	0.5	WH	2501	III	—	High Speed GMLAN Serial Data [-] 1	37	0.5	WH	2501	X	—
38 - 39	—	—	—	—	—	Not Occupied	38 - 39	—	—	—	—	—

X100 Instrument Panel Harness to Engine Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
40	0.5	WH	2501	III	—	High Speed GMLAN Serial Data [-] 1	40	0.5	WH	2501	X	—

X101 Engine Harness to Chassis Harness



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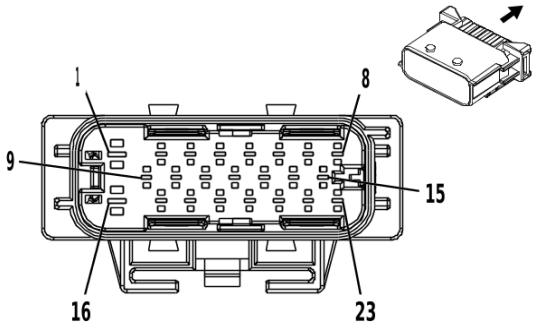


2906943

Connector Part Information

Harness Type: Engine
OEM Connector: 13674800
Service Connector: 19300480
Description: 23-Way F 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 13674783
Service Connector: 19303858
Description: 23-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576369	J-35616-14 (GN)	J-38125-560
II	13575380	J-35616-3 (GY)	EL-38125-560-A

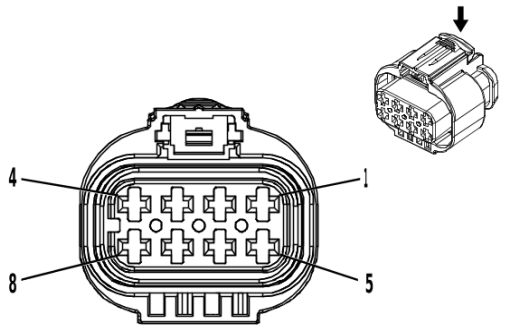
X101 Engine Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	BU	2500	I	—	High Speed GMLAN Serial Data [+] 1	2	0.5	BU	2500	II	—
3	0.5	WH	2501	I	—	High Speed GMLAN Serial Data [-] 1	3	0.5	WH	2501	II	—
4	0.5	YE	2375	I	—	Left Rear Outer Parking Assist Sensor Signal	4	0.5	YE	2375	II	—
5	0.5	YE/ BU	2376	I	—	Left Rear Middle Parking Assist Sensor Signal	5	0.5	YE/ BU	2376	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.5	BK/ GY	2379	I	—	Object Sensor Low Reference	7	0.5	BK/ GY	2379	II	—
8	0.5	GN/ GY	465	I	—	Fuel Pump Primary Relay Control	8	0.5	GN/ GY	465	II	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	YE/ WH	2377	I	—	Right Rear Middle Parking Assist Sensor Signal	10	0.5	YE/ WH	2377	II	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—

X101 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	0.5	VT/ GN	4320	I	—	Selective Catalytic Reduction Power Module Wake-Up Signal	12	0.5	VT/ GN	4320	II	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	BN/ WH	2374	I	—	Object Sensor Supply Voltage	14	0.5	BN/ WH	2374	II	—
15	0.5	YE/ VT	2378	I	—	Right Rear Outer Parking Assist Sensor Signal	15	0.5	YE/ VT	2378	II	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—
17	0.5	BU/ BN	4498	I	—	High Speed GMLAN Serial Data [+] 7	17	0.5	BU/ BN	4498	II	—
18	0.5	WH	4499	I	—	High Speed GMLAN Serial Data [-] 7	18	0.5	WH	4499	II	—
19	—	—	—	—	—	Not Occupied	19	—	—	—	—	—
20	0.5	WH/ BU	5986	I	—	Serial Data Communication Enable	20	0.5	WH/ BU	5986	II	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	BU	2500	I	—	High Speed GMLAN Serial Data [+] 1	22	0.5	BU	2500	II	—
23	0.5	WH	2501	I	—	High Speed GMLAN Serial Data [-] 1	23	0.5	WH	2501	II	—

X102 Chassis Harness to Fuel Tank Harness



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3749582

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180742
Service Connector: 19354078
Description: 8-Way F 2.8 Series, Sealed (L-GY)

Connector Part Information

Harness Type: Fuel Tank
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

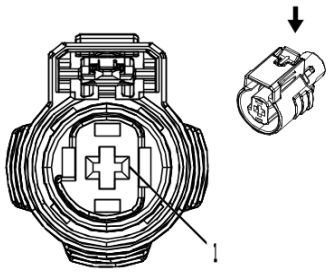
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X102 Chassis Harness to Fuel Tank Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	GY	120	I	—	Fuel Pump Control	1	2.5	GY	120	II	—
2	2.5	YE/GY	4137	I	—	Fuel Pump Supply Voltage Phase 2	2	2.5	YE/GY	4137	II	—
3	2.5	WH/BN	4138	I	—	Fuel Pump Supply Voltage Phase 3	3	2.5	WH/BN	4138	II	—
4	0.5	BK	7444	I	—	Fuel Pump Assembly Shield Ground	4	0.5	BK	7444	II	—
5	0.5	BU/VT	1589	I	—	Primary Fuel Level Sensor Signal 2	5	0.5	BU/VT	1589	II	—
6	0.5	BK/GN	6281	I	—	Fuel Level Sensor Low Reference	6	0.5	BK/GN	6281	II	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X103 Engine Harness to Starter Jumper Harness



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2717134

Connector Part Information

Harness Type: Engine
OEM Connector: 15526411
Service Connector: 19300471
Description: 1-Way F 2.8 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Starter Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M

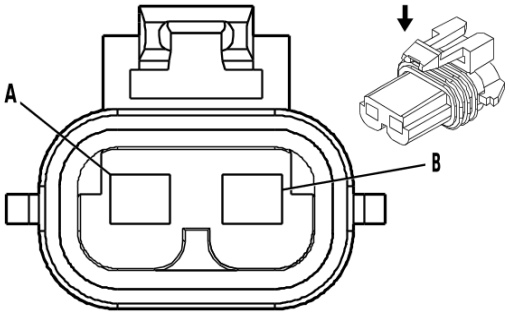
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X103 Engine Harness to Starter Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	4	YE	6	I	—	Starter Solenoid Actuator Crank Ignition Voltage	1	4	YE	6	II	—

X104 Instrument Panel Harness to Air Bag Jumper Harness



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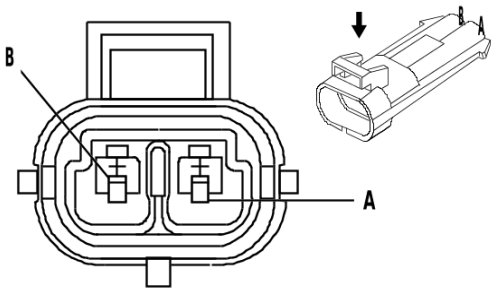


879383

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12077900
Service Connector: 12116247
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 15317807
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 280 Metri-Pack Series (BK)

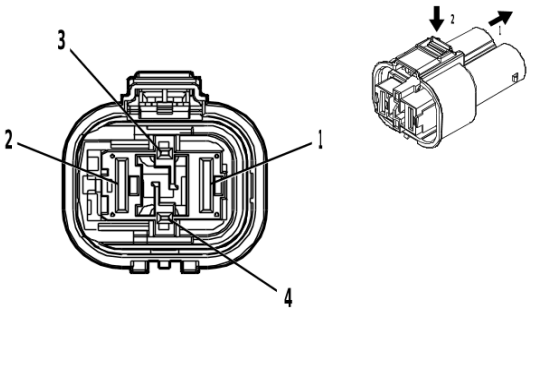
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X104 Instrument Panel Harness to Air Bag Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	D-BU/WH	6619	I	—	Front Middle Impact Discriminating Sensor Low Reference	A	0.5	D-BU/WH	6619	II	—
B	0.5	BN/WH	6618	I	—	Front Middle Impact Discriminating Sensor Signal	B	0.5	BN/WH	6618	II	—

X108 Battery Cable - Positive Harness to Engine Harness



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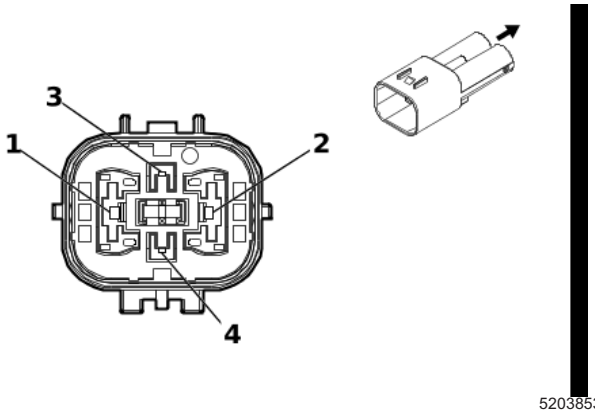


5203853

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 33389553
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2, 9.5 MCON Series (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 33379229
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2, 9.5 MCON Series (BK)

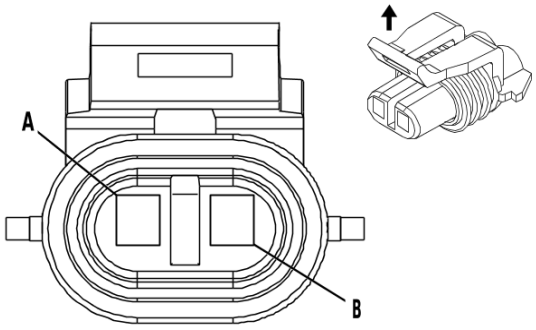
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required
II	Not Required	J-35616-21 (RD)	No Tool Required

X108 Battery Cable - Positive Harness to Engine Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	10	RD/ YE	2	I	—	Battery Positive Voltage	1	6	RD/ YE	2	II	—
2	10	RD/ YE	2	I	—	Battery Positive Voltage	2	10	RD/ YE	2	II	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

X109 Engine Harness to Underhood Lamp Harness



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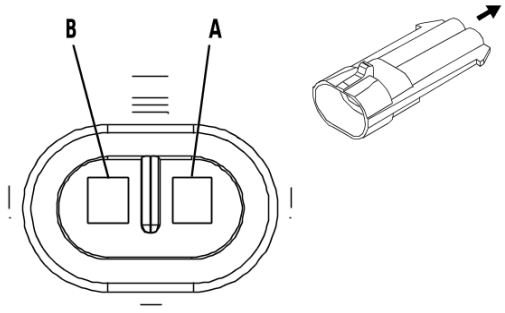


333041

Connector Part Information

Harness Type: Engine
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Underhood Lamp
OEM Connector: 12162000
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (BK)

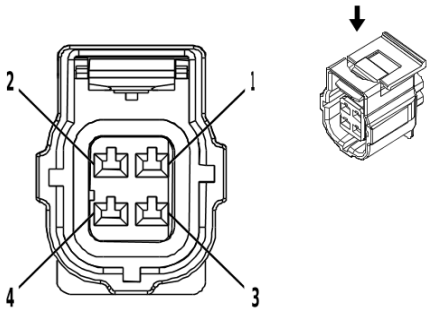
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X109 Engine Harness to Underhood Lamp Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	VT/ RD	1732	I	—	Control Module 12V Reference 3	A	0.5	OG	1732	II	—
B	0.75	BK	1250	I	—	Ground 12	B	0.5	BK	1250	II	—

X111 Engine Harness to Glow Plug Jumper Harness



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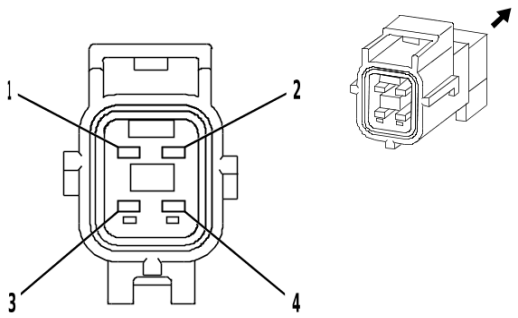


1243485

Connector Part Information

Harness Type: Engine
OEM Connector: 33225173
Service Connector: 13587793
Description: 4-Way F SSC Series (BK)

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 184346-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M Sealed Sensor Connector System (BK)

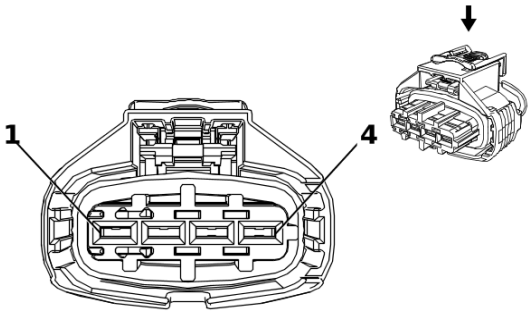
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required
II	Not Required	J-35616-34 (YE)	No Tool Required

X111 Engine Harness to Glow Plug Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2	GY/ BU	1581	I	—	Glow Plug 1 Control	1	1.5	GN/ BK	—	II	—
2	2	GY/ BN	1582	I	—	Glow Plug 2 Control	2	1.5	RD/ BK	—	II	—
3	2	GY/ L-GN	1583	I	—	Glow Plug 3 Control	3	1.5	WH/ BK	—	II	—
4	2	GY/ YE	1584	I	—	Glow Plug 4 Control	4	1.5	BK	—	II	—

X112 Engine Harness to Intake Manifold Pressure and Air Temperature Sensor Jumper Harness



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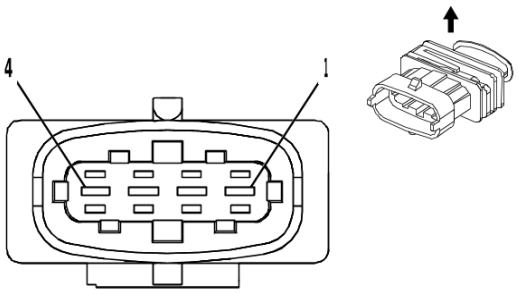


816173

Connector Part Information

Harness Type: Engine
OEM Connector: 13931683
Service Connector: 13584423
Description: 4-Way F 2.8 Series, Sealed (BK)

Connector Part Information

Harness Type: Intake Manifold Pressure and Air Temperature Sensor Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M

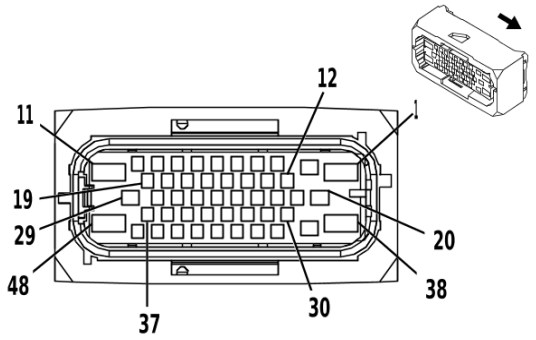
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required
II	Not Required	No Tool Required	No Tool Required

X112 Engine Harness to Intake Manifold Pressure and Air Temperature Sensor Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK/GN	469	I	—	Manifold Absolute Pressure Sensor Low Reference	1	0.5	BK/GN	469	II	—
2	0.5	BN	7348	I	—	Intake Air Temperature Sensor 2 Signal	2	0.5	BN	7348	II	—
3	0.5	GY/RD	2704	I	—	Manifold Absolute Pressure Sensor 5V Reference	3	0.5	GY/RD	2704	II	—
4	0.5	GN/WH	432	I	—	Manifold Absolute Pressure Sensor Signal	4	0.5	GN/WH	432	II	—

X116 Engine Harness to Chassis Harness



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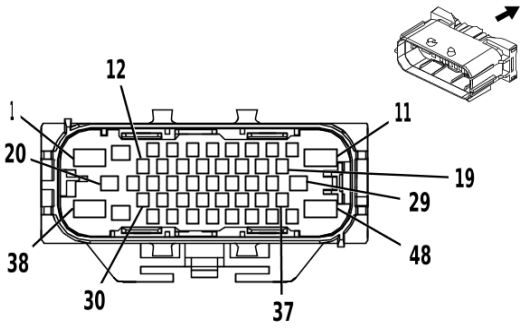


3924401

Connector Part Information

Harness Type: Engine
OEM Connector: 15509585
Service Connector: 19329744
Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 15513438
Service Connector: 19356277
Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580829	J-35616-4A (PU)	J-38125-36
II	13580830	J-35616-4A (PU)	J-38125-36
III	19119560	J-35616-40 (BU)	J-38125-556
IV	19301766	J-35616-14 (GN)	J-38125-215A
V	19301775	J-35616-40 (BU)	J-38125-556
VI	19301776	J-35616-14 (GN)	J-38125-215A
VII	13575380	J-35616-3 (GY)	EL-38125-560-A
VIII	13578827	J-35616-5 (PU)	J-38125-36
IX	13580827	J-35616-5 (PU)	J-38125-36
X	19301750	J-35616-32 (OR)	J-38125-36

X116 Engine Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	2.5	BU	3921	I	—	—	2	2.5	BU	3921	VIII	—
3	0.5	GN/BU	3889	VI	—	Powertrain Sensor Bus Relay Control	3	0.5	GN/BU	3889	VII	—
4	0.5	YE/WH	2377	VI	—	Right Rear Middle Parking Assist Sensor Signal	4	0.5	YE/WH	2377	VII	—
5	0.5	BU	2500	VI	—	High Speed GMLAN Serial Data [+] 1	5	0.5	BU	2500	VII	—
6	0.5	WH	2501	VI	—	High Speed GMLAN Serial Data [-] 1	6	0.5	WH	2501	VII	—

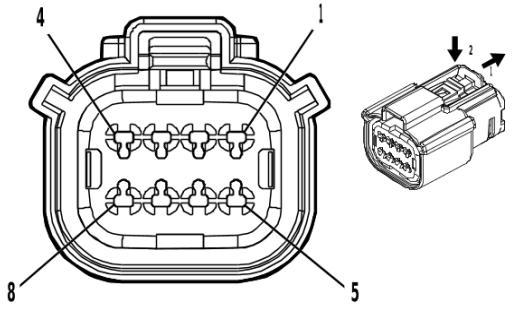
X116 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	WH/RD	6054	VI	—	Exhaust Pressure Sensor 1 5V Reference	7	0.5	WH/RD	6054	VII	—
8	0.5	BK/YE	6055	VI	—	Exhaust Pressure Sensor 1 Low Reference	8	0.5	BK/YE	6055	VII	—
9	0.5	BK/GN	6281	IV	—	Fuel Level Sensor Low Reference	9	0.5	BK/GN	6281	VII	—
10	0.5	BU/VT	1589	IV	—	Primary Fuel Level Sensor Signal 2	10	0.5	BU/VT	1589	VII	—
11	1	GY	3672	V	—	NOx Sensor 2 Control	11	1	GY	3672	X	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—
13	0.5	BN/WH	7073	IV	—	Fuel Temperature Sensor 1 Low Reference	13	0.5	BN/WH	7073	VII	—
14	0.5	BN/GY	7072	IV	—	Fuel Temperature Sensor 1 Signal	14	0.5	BN/GY	7072	VII	—
15	0.5	BN/WH	2374	VI	—	Object Sensor Supply Voltage	15	0.5	BN/WH	2374	VII	—
16	0.5	YE	2375	VI	—	Left Rear Outer Parking Assist Sensor Signal	16	0.5	YE	2375	VII	—
17	0.5	YE/BU	2376	VI	—	Left Rear Middle Parking Assist Sensor Signal	17	0.5	YE/BU	2376	VII	—
18 - 19	—	—	—	—	—	Not Occupied	18 - 19	—	—	—	—	—
20	0.5	BU	6053	II	—	Exhaust Pressure Sensor 1 Signal	20	0.5	BU	6053	IX	—
21	0.5	BU/YE	6861	IV	—	Water In Fuel Sensor Signal	21	0.5	BU/YE	6861	VII	—
22 - 23	—	—	—	—	—	Not Occupied	22 - 23	—	—	—	—	—
24	0.5	GY/BN	7065	VI	—	Right Front Wheel Speed Sensor Control	24	0.5	GY/BN	7065	VII	—
25	0.5	YE	872	VI	—	Right Front Wheel Speed Sensor Signal	25	0.5	YE	872	VII	—
26	0.5	YE/VT	2378	VI	—	Right Rear Outer Parking Assist Sensor Signal	26	0.5	YE/VT	2378	VII	—
27	—	—	—	—	—	Not Occupied	27	—	—	—	—	—
28	0.5	VT/YE	5985	VI	—	Accessory Wake-Up Serial Data	28	0.5	VT/YE	5985	VII	—
29	1	BK	150	II	—	Ground 1	29	1	BK	150	IX	—

X116 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
30	0.5	BU/ GY	3660	VI	—	Exhaust Gas Temperature Sensor 5 Signal	30	0.5	BU/ GY	3660	VII	—
31	0.5	BK/ VT	3661	VI	—	Exhaust Gas Temperature Sensor 5 Low Reference	31	0.5	BK/ VT	3661	VII	—
32	0.5	BU/ BK	7493	VI	—	High Speed GMLAN Serial Data [+] 3	32	0.5	BU/ BK	7493	VII	—
33	0.5	WH	7494	VI	—	High Speed GMLAN Serial Data [-] 3	33	0.5	WH	7494	VII	—
34 - 35	—	—	—	—	—	Not Occupied	34 - 35	—	—	—	—	—
36	0.5	WH/ BU	5986	VI	—	Serial Data Communication Enable	36	0.5	WH/ BU	5986	VII	—
37	0.5	BK/ GY	2379	VI	—	Object Sensor Low Reference	37	0.5	BK/ GY	2379	VII	—
38	—	—	—	—	—	Not Occupied	38	—	—	—	—	—
39	0.5	BU	2500	II	—	High Speed GMLAN Serial Data [+] 1	39	0.5	BU	2500	IX	—
40	0.5	WH	2501	VI	—	High Speed GMLAN Serial Data [-] 1	40	0.5	WH	2501	VII	—
41	0.5	BK/ GN	3657	VI	—	Exhaust Gas Temperature Sensor 3 Low Reference	41	0.5	BK/ GN	3657	VII	—
42	0.5	GY/ GN	5378	VI	—	Exhaust Gas Temperature Sensor 3 Signal	42	0.5	GY/ GN	5378	VII	—
43	0.5	VT/ BN	3658	VI	—	Exhaust Gas Temperature Sensor 4 Signal	43	0.5	VT/ BN	3658	VII	—
44	0.5	BK/ GY	3659	VI	—	Exhaust Gas Temperature Sensor 4 Low Reference	44	0.5	BK/ GY	3659	VII	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.75	BN/ BU	2926	VI	—	Exhaust Aftertreatment Fuel Injector High Control	46	0.75	BN/ BU	2926	VII	—
47	0.75	VT/ BN	2927	VI	—	Exhaust Aftertreatment Fuel Injector Low Control	47	0.75	VT/ BN	2927	VII	—
48	2.5	VT/ GN	355	III	—	—	48	2.5	VT/ GN	355	X	—

X130 Engine Harness to Camshaft Position Sensor Jumper Harness



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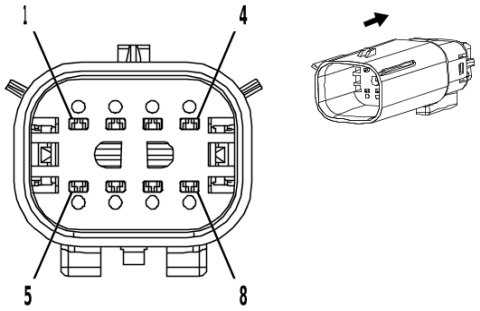


2667653

Connector Part Information

Harness Type: Engine
OEM Connector: 35063116
Service Connector: 19366859
Description: 8-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	No Tool Required	No Tool Required

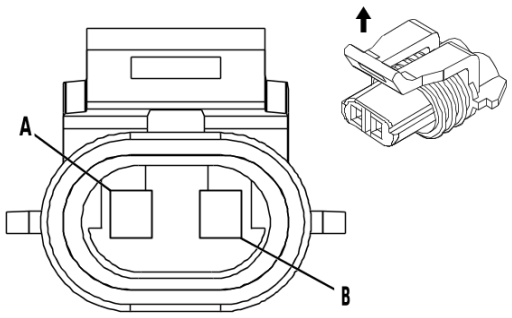
X130 Engine Harness to Camshaft Position Sensor Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY/BU	5300	I	—	Intake Camshaft Position Sensor 1 Voltage Reference	1	0.5	GY/BU	5300	II	—
2	0.5	BK/GN	5301	I	—	Intake Camshaft Position Sensor Low Reference 1	2	0.5	BK/GN	5301	II	—
3	0.5	YE/VT	5275	I	—	Intake Camshaft Position Sensor 1	3	0.5	YE/VT	5275	II	—
4	0.5	BU	179	I	—	Engine Oil Pump Control	4	0.5	BU	179	II	—
5	0.5	VT/BN	5284	I	—	Intake Camshaft Position Actuator Solenoid Valve 1	5	0.5	VT/BN	5284	II	—
6	0.5	BK/BN	6753	I	—	Camshaft Position Actuator Solenoid Valve W Low Reference	6	0.5	BK/BN	6753	II	—

X130 Engine Harness to Camshaft Position Sensor Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	VT/ BU	5293	I	—	Powertrain Main Relay Fused Supply 4	7	0.5	VT/ BU	5293	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X141 Instrument Panel Harness to Brake Fluid Level Switch Harness



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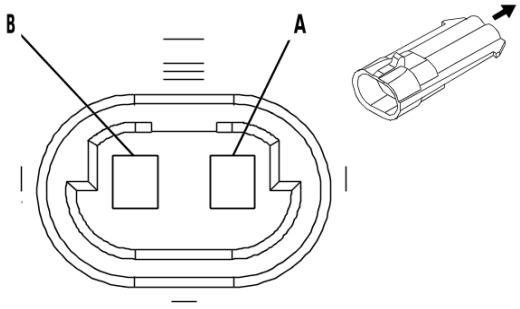


605500

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 12162343
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (GY)

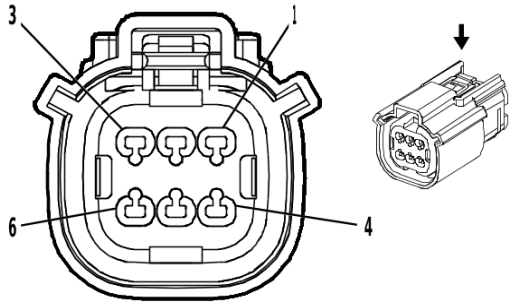
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X141 Instrument Panel Harness to Brake Fluid Level Switch Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	TN/WH	33	I	—	Brake Warning Indicator Control	A	0.5	TN/WH	33	II	—
B	0.5	BK/WH	351	I	—	Ground 3	B	0.5	BK/WH	351	II	—

X142 Engine Harness to Cooling Fan Clutch Jumper Harness



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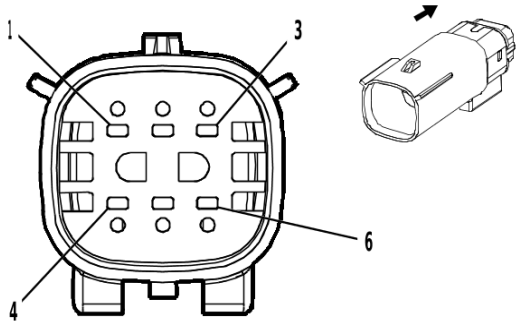


1986159

Connector Part Information

Harness Type: Engine
OEM Connector: 13609714
Service Connector: 13578533
Description: 6-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Cooling Fan Clutch Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M

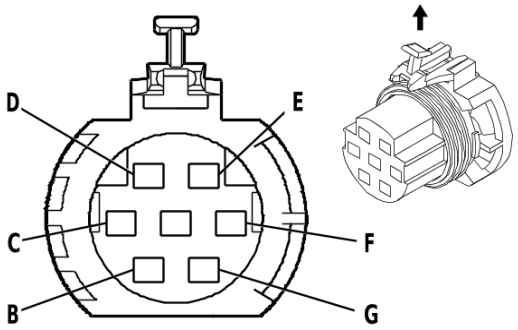
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X142 Engine Harness to Cooling Fan Clutch Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	WH	2368	I	—	Cooling Fan Control	2	0.5	WH	2368	II	—
3	0.5	GY/RD	2365	I	—	Cooling Fan Speed Sensor 5V Reference	3	0.5	GY/RD	2365	II	—
4	0.5	BU/VT	2364	I	—	Cooling Fan Speed Signal	4	0.5	BU/VT	2364	II	—
5	0.5	BK/BN	6141	I	—	Cooling Fan Speed Sensor Low Reference	5	0.5	BK/BN	6141	II	—
6	0.75	BK	550	I	—	Ground 5	6	0.75	BK	550	II	—

X150 Instrument Panel Harness to Forward Lamp Harness



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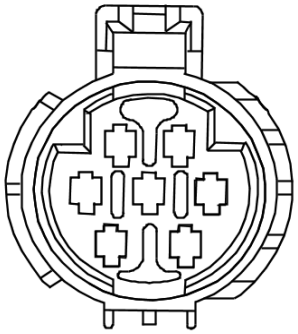


258231

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12110751
Service Connector: 12110751
Description: 7-Way F 280 Metri-Pack Flexlock Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12110753
Service Connector: 12110753
Description: 7-Way M 280 Metri-Pack Series, Sealed (BK)

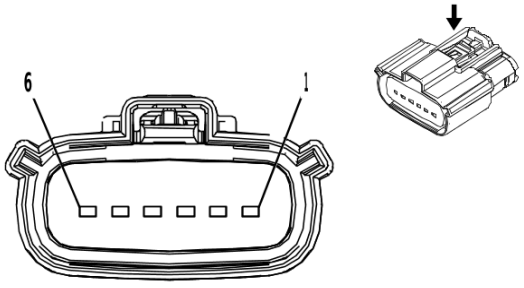
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X150 Instrument Panel Harness to Forward Lamp Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	PK/BK	109	I	—	Hood Ajar Switch Signal	A	0.5	PK/BK	109	II	—
B	0.5	PU	5531	I	—	Hood Closed Switch Signal	B	0.5	PU	5531	II	—
C	0.5	BU/GY	636	I	UFA	Ambient Air Temperature Sensor Signal	C	0.5	BU/GY	636	II	UFA
D	0.5	BK/BU	61	I	UFA	Ambient Air Temperature Sensor Low Reference	D	0.5	BK/BU	61	II	UFA
E	0.5	BK/YE	407	I	—	Sensor Low Reference	E	0.5	BK/YE	407	II	—
F	0.5	GN/BK	735	I	—	Ambient Air Temperature Sensor Signal 2	F	0.5	GN/BK	735	II	—
G	—	—	—	—	—	Not Occupied	G	—	—	—	—	—

X155 Engine Harness to Engine Oil Pressure Sensor Jumper Harness



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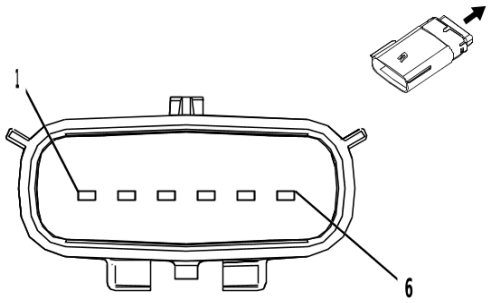


3277908

Connector Part Information

Harness Type: Engine
OEM Connector: 33124755
Service Connector: 19368640
Description: 6-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Engine Oil Pressure Sensor Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M

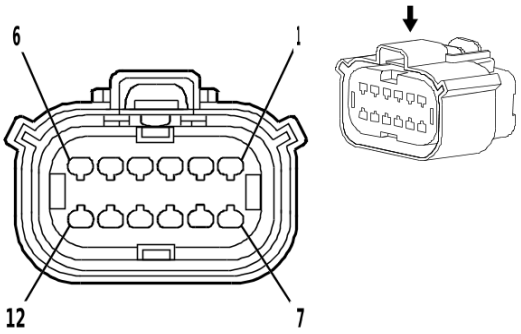
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	No Tool Required	No Tool Required

X155 Engine Harness to Engine Oil Pressure Sensor Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU	410	I	—	Engine Coolant Temperature Sensor Signal	1	0.5	BU	410	II	—
2	0.5	BK/YE	548	I	—	Engine Control Sensors Low Reference 1	2	0.5	BK/YE	548	II	—
3	0.5	YE/BN	331	I	—	Oil Pressure Sensor Signal	3	0.5	YE/BN	331	II	—
4	0.5	BK/YE	548	I	—	Engine Control Sensors Low Reference 1	4	0.5	BK/YE	548	II	—
5	0.5	WH/RD	480	I	—	Engine Control Vehicle Sensors 5 Volt Reference 1	5	0.5	WH/RD	480	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X160 Engine Harness to Fuel Injector Harness (L8T)



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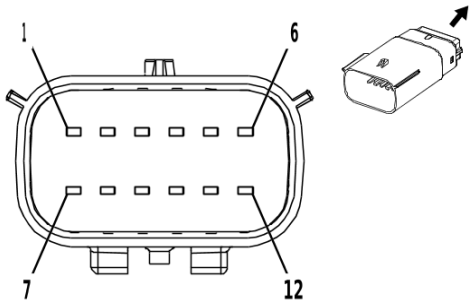


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13595088
Service Connector: 19352907
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	Not Required	No Tool Required	No Tool Required

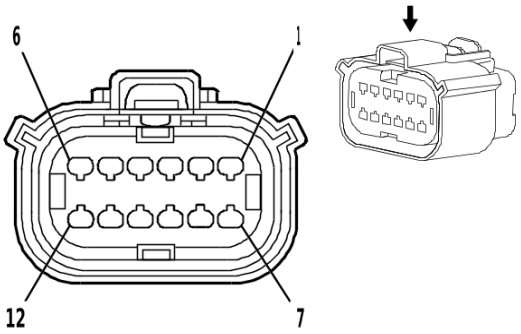
X160 Engine Harness to Fuel Injector Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BN/WH	4901	I	—	Direct Fuel Injector High Voltage Supply Cylinder 1	1	0.75	BN/WH	4901	II	—
2	0.75	GN/GY	4903	I	—	Direct Fuel Injector High Voltage Supply Cylinder 3	2	0.75	GN/GY	4903	II	—
3	0.75	GN/WH	4905	I	—	Direct Fuel Injector High Voltage Supply Cylinder 5	3	0.75	GN/WH	4905	II	—
4	0.75	WH/YE	4907	I	—	Direct Fuel Injector High Voltage Supply Cylinder 7	4	0.75	WH/YE	4907	II	—
5	0.75	BN	4801	I	—	Direct Fuel Injector High Voltage Control Cylinder 1	5	0.75	BN	4801	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X160 Engine Harness to Fuel Injector Harness (L8T) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.75	GN	4803	I	—	Direct Fuel Injector High Voltage Control Cylinder 3	7	0.75	GN	4803	II	—
8	0.75	WH/ GN	4805	I	—	Direct Fuel Injector High Voltage Control Cylinder 5	8	0.75	WH/ GN	4805	II	—
9	0.75	YE/ GY	4807	I	—	Direct Fuel Injector High Voltage Control Cylinder 7	9	0.75	YE/ GY	4807	II	—
10	0.5	WH/ RD	480	I	—	Engine Control Vehicle Sensors 5 Volt Reference 1	10	0.5	WH/ RD	480	II	—
11	0.5	BU/ WH	2918	I	—	Fuel Rail Pressure Sensor Signal	11	0.5	BU/ WH	2918	II	—
12	0.5	BK/ YE	548	I	—	Engine Control Sensors Low Reference 1	12	0.5	BK/ YE	548	II	—

X160 Engine Harness to Fuel Injector Harness (LV1)



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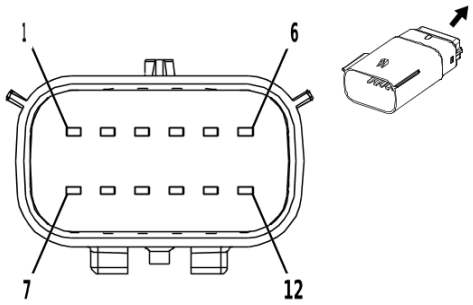


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13609715
Service Connector: 19352907
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	Not Required	No Tool Required	No Tool Required

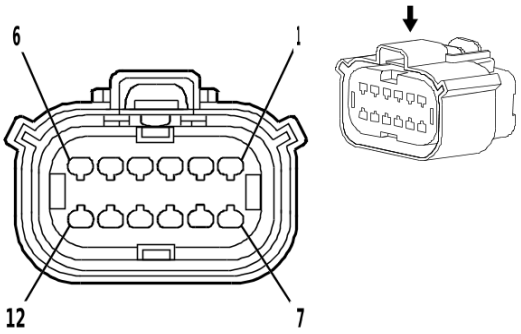
X160 Engine Harness to Fuel Injector Harness (LV1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BN/WH	4901	I	—	Direct Fuel Injector High Voltage Supply Cylinder 1	2	0.75	BN/WH	4901	II	—
3	0.75	GN/GY	4903	I	—	Direct Fuel Injector High Voltage Supply Cylinder 3	3	0.75	GN/GY	4903	II	—
4	0.75	GN/WH	4905	I	—	Direct Fuel Injector High Voltage Supply Cylinder 5	4	0.75	GN/WH	4905	II	—
5	0.75	BN	4801	I	—	Direct Fuel Injector High Voltage Control Cylinder 1	5	0.75	BN	4801	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	0.75	GN	4803	I	—	Direct Fuel Injector High Voltage Control Cylinder 3	8	0.75	GN	4803	II	—

X160 Engine Harness to Fuel Injector Harness (LV1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.75	WH/ GN	4805	I	—	Direct Fuel Injector High Voltage Control Cylinder 5	9	0.75	WH/ GN	4805	II	—
10	0.5	WH/ RD	480	I	—	Engine Control Vehicle Sensors 5 Volt Reference 1	10	0.5	WH/ RD	480	II	—
11	0.5	BU/ WH	2918	I	—	Fuel Rail Pressure Sensor Signal	11	0.5	BU/ WH	2918	II	—
12	0.5	BK/ YE	548	I	—	Engine Control Sensors Low Reference 1	12	0.5	BK/ YE	548	II	—

X161 Engine Harness to Fuel Injector Harness (L8T)



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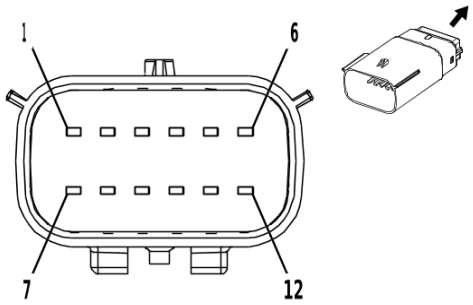


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13922706
Service Connector: 19352907
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	Not Required	No Tool Required	No Tool Required

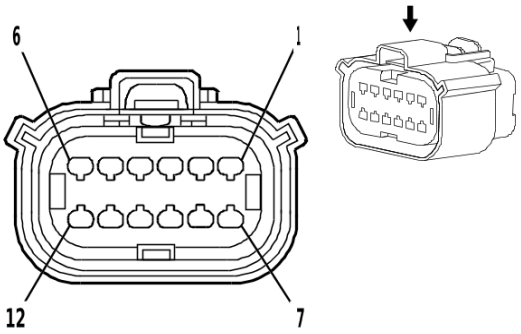
X161 Engine Harness to Fuel Injector Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BU/GY	4902	I	—	Direct Fuel Injector High Voltage Supply Cylinder 2	1	0.75	BU/GY	4902	II	—
2	0.75	BU/WH	4904	I	—	Direct Fuel Injector High Voltage Supply Cylinder 4	2	0.75	BU/WH	4904	II	—
3	0.75	VT/GY	4906	I	—	Direct Fuel Injector High Voltage Supply Cylinder 6	3	0.75	VT/GY	4906	II	—
4	0.75	GY/WH	4908	I	—	Direct Fuel Injector High Voltage Supply Cylinder 8	4	0.75	GY/WH	4908	II	—
5	0.75	BU	4802	I	—	Direct Fuel Injector High Voltage Control Cylinder 2	5	0.75	BU	4802	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—

X161 Engine Harness to Fuel Injector Harness (L8T) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.75	GY/ BU	4804	I	—	Direct Fuel Injector High Voltage Control Cylinder 4	8	0.75	GY/ BU	4804	II	—
9	0.75	VT/ GN	4806	I	—	Direct Fuel Injector High Voltage Control Cylinder 6	9	0.75	VT/ GN	4806	II	—
10	0.75	GY	4808	I	—	Direct Fuel Injector High Voltage Control Cylinder 8	10	0.75	GY	4808	II	—
11	0.75	VT/ BK	7300	I	—	High Pressure Fuel Pump Low Control	11	0.75	VT/ BK	7300	II	—
12	0.75	YE	7301	I	—	High Pressure Fuel Pump High Control	12	0.75	YE	7301	II	—

X161 Engine Harness to Fuel Injector Harness (LV1)



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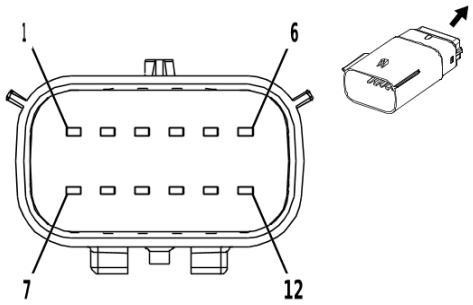


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13863397
Service Connector: 19352907
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	Not Required	No Tool Required	No Tool Required

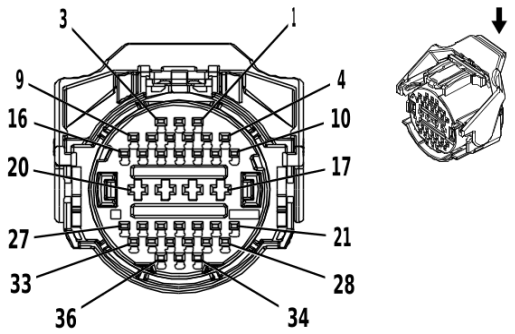
X161 Engine Harness to Fuel Injector Harness (LV1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BU/GY	4902	I	—	Direct Fuel Injector High Voltage Supply Cylinder 2	2	0.75	BU/GY	4902	II	—
3	0.75	BU/WH	4904	I	—	Direct Fuel Injector High Voltage Supply Cylinder 4	3	0.75	BU/WH	4904	II	—
4	0.75	VT/GY	4906	I	—	Direct Fuel Injector High Voltage Supply Cylinder 6	4	0.75	VT/GY	4906	II	—
5	0.75	BU	4802	I	—	Direct Fuel Injector High Voltage Control Cylinder 2	5	0.75	BU	4802	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	0.75	GY/BU	4804	I	—	Direct Fuel Injector High Voltage Control Cylinder 4	8	0.75	GY/BU	4804	II	—

X161 Engine Harness to Fuel Injector Harness (LV1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.75	VT/ GN	4806	I	—	Direct Fuel Injector High Voltage Control Cylinder 6	9	0.75	VT/ GN	4806	II	—
10	0.75	VT/ BK	7300	I	—	High Pressure Fuel Pump Low Control	10	0.75	VT/ BK	7300	II	—
11	0.75	YE	7301	I	—	High Pressure Fuel Pump High Control	11	0.75	YE	7301	II	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—

X175 Engine Harness to Transmission Jumper Harness



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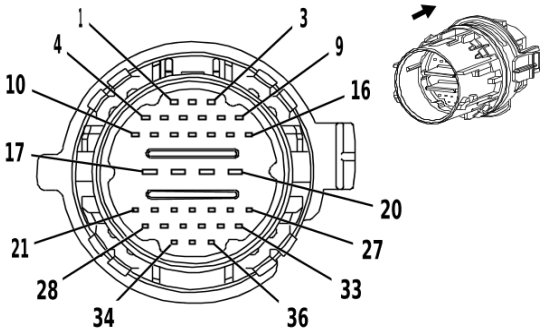


3977661

Connector Part Information

Harness Type: Engine
OEM Connector: 15504573
Service Connector: 19329922
Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Transmission Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 36-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19119772	J-35616-35 (VT)	J-38125-215A
II	19300445	J-35616-16 (LT GN)	J-38125-11A
III	Not Required	J-35616-17 (LT GN)	No Tool Required

X175 Engine Harness to Transmission Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN/WH	6380	II	—	Torque Converter Clutch Enable Solenoid Valve A Control	1	0.5	GN/WH	6380	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.5	VT/WH	422	II	—	Torque Converter Clutch Solenoid Valve Control	3	0.5	VT/WH	422	III	—
4	0.5	GN/WH	1530	II	—	Transmission Line Pressure Control Solenoid Valve Control	4	0.5	GN/WH	1530	III	—
5	0.5	BN	6400	II	—	Clutch Solenoid Valve A Control	5	0.5	BN	6400	III	—

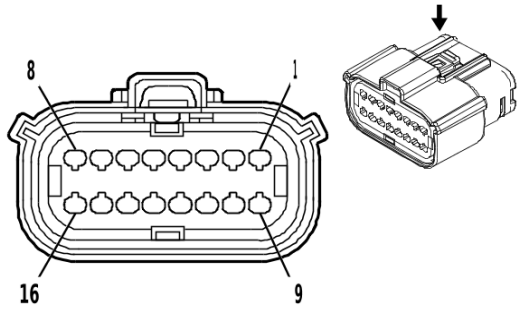
X175 Engine Harness to Transmission Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	BU	6401	II	—	Clutch Solenoid Valve B Control	6	0.5	BU	6401	III	—
7	0.5	YE/ BN	6210	II	—	Torque Converter Clutch Enable Solenoid Valve B Control	7	0.5	YE/ BN	6210	III	—
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.5	GY	6402	II	—	Clutch Solenoid Valve C Control	10	0.5	GY	6402	III	—
11	0.5	BK/ BN	586	II	—	Transmission Fluid Temperature Sensor Low Reference	11	0.5	BK/ BN	586	III	—
12	0.5	BN/ WH	585	II	—	Transmission Fluid Temperature Sensor Signal	12	0.5	BN/ WH	585	III	—
13	0.5	WH	4508	II	—	Transmission Clutch G Control	13	0.5	WH	4508	III	—
14	0.5	WH/ BU	4507	II	—	Transmission Clutch H Control	14	0.5	WH/ BU	4507	III	—
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
18	0.5	GN/ GY	6387	I	—	Transmission High Side Driver 1 Control	18	0.5	GN/ GY	6387	III	—
19	0.75	GY/ BN	6388	I	—	Transmission High Side Driver 2 Control	19	0.75	GY/ BN	6388	III	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.5	GN/ YE	3337	II	—	Transmission Internal Mode Switch Mode Control Y	21	0.5	GN/ YE	3337	III	—
22	0.5	BU/ WH	3338	II	—	Transmission Internal Mode Switch Mode Control X	22	0.5	BU/ WH	3338	III	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	GY/ BU	6358	II	—	Output Speed Signal	24	0.5	GY/ BU	6358	III	—

X175 Engine Harness to Transmission Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
25	0.5	YE/GN	4170	II	—	Transmission Output Shaft Speed Sensor Circuit 9V Reference	25	0.5	YE/GN	4170	III	—
26	0.5	GN/YE	6353	II	—	Input Speed Signal	26	0.5	GN/YE	6353	III	—
27	0.5	YE/BU	4171	II	—	Transmission Input Shaft Speed Sensor Circuit 9V Reference	27	0.5	YE/BU	4171	III	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	0.5 0.5	WH/RD WH/RD	480 596	II II	LV1+M5U LWN +MQD	Engine Control Vehicle Sensors 5 Volt Reference 1 5 Volt Reference 2	29	0.5 0.5	WH/RD WH/RD	480 596	III III	LV1+M5U LWN+MQD
30	0.5 0.5	BK/GY BK/GY	3927 626	II II	LV1+M5U LWN +MQD	Transmission Internal Mode Switch Feedback Signal Engine Control Vehicle Sensors Low Reference 1	30	0.5 0.5	BK/GY BK/GY	3927 626	III III	LV1+M5U LWN+MQD
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	0.5	GN/VT	4510	II	—	Transmission Intermediate Speed Signal	32	0.5	GN/VT	4510	III	—
33 - 36	—	—	—	—	—	Not Occupied	33 - 36	—	—	—	—	—

X185 Instrument Panel Harness to Chassis Harness



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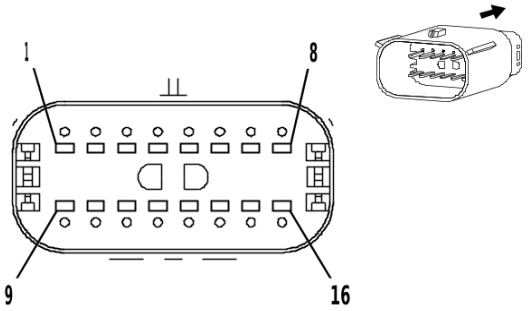


2548390

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13778557
Service Connector: 13584788
Description: 16-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33372790
Service Connector: 19369662
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300432	J-35616-2A (GY)	J-38125-217
II	19119395	J-35616-3 (GY)	J-38125-217

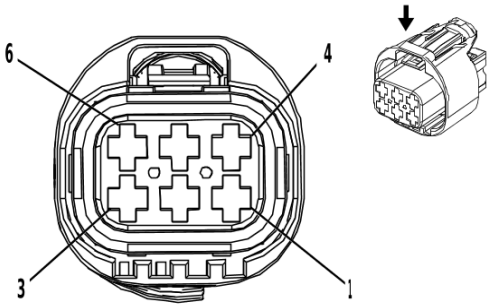
X185 Instrument Panel Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	RD/GN	3140	I	—	Secondary Fused Battery Positive Voltage 31	1	0.5	RD/GN	3140	II	—
2	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	2	0.5	GN	5060	II	—
3 - 7	—	—	—	—	—	Not Occupied	3 - 7	—	—	—	—	—
8	0.5	BU/YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	8	0.5	BU/YE	6105	II	—
9	0.5	GY/YE	5853	I	—	Driver Side Side Object Detection LED Signal 1	9	0.5	GY/YE	5853	II	—
10	0.5	GY	5861	I	—	Passenger Side Object Detection LED Signal 1	10	0.5	GY	5861	II	—
11 - 14	—	—	—	—	—	Not Occupied	11 - 14	—	—	—	—	—

X185 Instrument Panel Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
15	0.5	GN/ BN	2087	I	—	Multi-axis Acceleration Sensor Supply Voltage	15	0.5	GN/ BN	2087	II	—
16	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	16	0.5	WH	6106	II	—

X190 Accessory Harness to Accessory Power Fuse Block Rear Extension Harness



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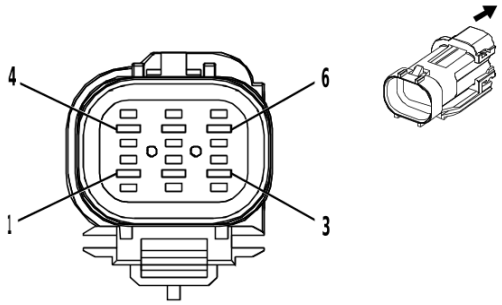

2042939

Connector Part Information

Harness Type: Accessory
OEM Connector: 10865192
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 2.8 Junior Power Timer Series, Sealed (BK)

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Extension
OEM Connector: 10865189
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X190 Accessory Harness to Accessory Power Fuse Block Rear Extension Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	L-BU	6842	I	—	Auxiliary Device Relay 1 Control	1	0.5	BK/ L-BU	6842	II	—
2	2.5	L-GN	6839	I	—	Auxiliary Device 1 Switched Voltage	2	2.5	L-GN	6839	II	—
3	0.5	D-BU	6843	I	—	Auxiliary Device Relay 2 Control	3	0.5	D-BU	6843	II	—
4	2.5	L-GN	6840	I	—	Auxiliary Device 2 Switched Voltage	4	2.5	L-GN	6840	II	—
5	1	RD/ WH	5440	I	—	Secondary Fused Battery Positive Voltage 54	5	1	RD/ WH	5440	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X200 Steering Wheel Harness to Instrument Panel Harness

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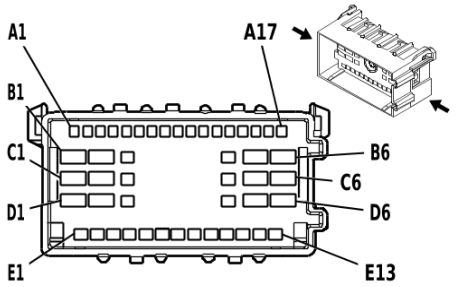


510556

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15492579
Service Connector: 88988982
Description: 48-Way M 150, 280, 630 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	13505668	J-35616-3 (GY)	J-38125-12A
III	13575463	J-35616-3 (GY)	J-38125-12A
IV	13575715	J-35616-5 (PU)	J-38125-11A
V	19330180	J-35616-43 (RD)	J-38125-11A

X200 Steering Wheel Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D1	0.35	TN/ BK	6009	I	—	Windshield Wiper Switch Low Reference	D1	0.35	TN/ BK	6009	V	—
A11	0.35	GN	6818	I	—	Steering Wheel Controls Signal 1	A11	0.35	GN	6818	III	—
A13	0.35	GN/ WH	7158	I	—	Cruise Control Indicator Dimming Signal	A13	0.35	GN/ WH	7158	III	—
A15	0.35	BN	6136	I	—	Control	A15	0.35	BN	6136	III	—
A17	0.35	GY	1884	I	—	Cruise Control Set/Coast/ Resume/ Accelerate Switch Signal	A17	0.35	GY	1884	III	—
A3	0.35	PK	1444	I	—	Steering Wheel Controls 12 Volt Reference	A3	0.35	PK	1444	III	—
A4	0.35	PU	5526	I	—	Tap Up/Down Switch Signal	A4	0.35	PU	5526	III	—
A6	0.5	GN/ BN	2087	I	—	Multi-axis Acceleration Sensor Supply Voltage	A6	0.5	GN/ BN	2087	II	—

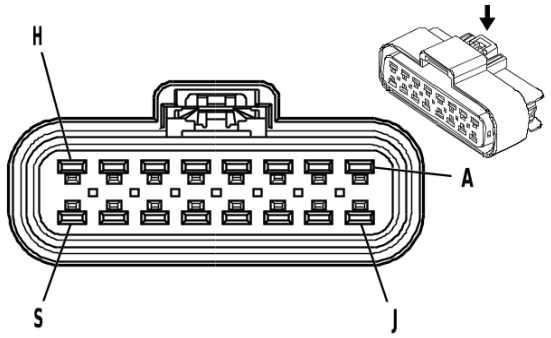
X200 Steering Wheel Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A9	0.35	PK	3	I	—	Run/Crank Ignition 1 Voltage	A9	0.35	PK	3	III	—
B1	0.35	RD/WH	540	I	—	Secondary Fused Battery Positive Voltage 5	B1	0.35	RD/WH	540	V	—
B3	0.35	WH	111	I	—	Hazard Warning Switch Signal	B3	0.35	WH	111	IV	—
B6	0.35	PK	1020	I	—	Off/Run/Crank Ignition Voltage 2	B6	0.35	PK	1020	V	—
C1	0.35	WH	530	I	—	Off/Run/Crank Ignition Voltage	C1	0.35	WH	530	V	—
A1	0.35	TN	28	I	—	Horn Relay Control	A1	0.35	TN	28	III	—
C6	0.35	BN	4	I	—	Accessory Voltage	C6	0.35	BN	4	V	—
E9	0.35	TN	664	I	—	Hazard Warning Switch Right Turn Signal	E9	0.35	TN	664	IV	—
D3	0.35	YE	525	I	—	High Beam Select Switch Low Beam Signal	D3	0.35	YE	525	IV	—
D4	0.5	TN/WH	816	I	—	Brake Transmission Shift Interlock Solenoid Actuator Control	D4	0.5	TN/WH	816	IV	—
D6	0.35	PK	94	I	—	Windshield Washer Switch Signal	D6	0.35	PK	94	V	—
E1	0.5	BK	350	I	—	Ground 3	E1	0.5	BK	350	IV	—
E11	0.35	BU	1714	I	—	Windshield Wiper Switch Low Signal	E11	0.35	BU	1714	IV	—
E12	0.35	GN	1715	I	—	Windshield Wiper Switch High Signal	E12	0.35	GN	1715	IV	—
E13	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	E13	0.35	GN	5060	IV	—
E3	0.5	BK/WH	351	I	—	Ground 3	E3	0.5	BK/WH	351	IV	—
E4	0.5	GN/YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	E4	0.5	BU/YE	6105	IV	—
E5	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	E5	0.5	WH	6106	IV	—
E6	0.5	BU/YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	E6	0.5	BU/YE	6105	IV	—
E7	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	E7	0.5	WH	6106	IV	—

X200 Steering Wheel Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
E8	0.35	GN	663	I	—	Hazard Warning Switch Left Turn Signal	E8	0.35	GN	663	IV	—
C3	0.35	YE	307	I	—	Headlamp Switch Flash Signal	C3	0.35	YE	307	IV	—

X202 Instrument Panel Harness to Engine Harness



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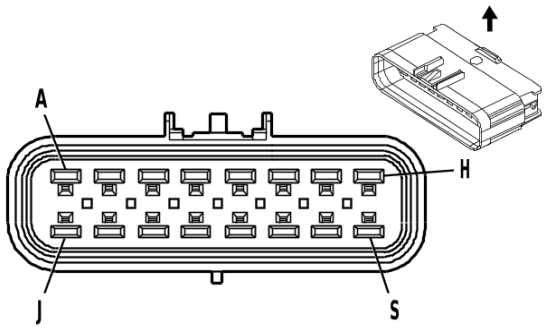


847270

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15326666
Service Connector: 15326666
Description: 16-Way F 280 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 15326667
Service Connector: 88986347
Description: 16-Way M 280 GT Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580824	J-35616-4A (PU)	J-38125-553
II	13575353	J-35616-5 (PU)	J-38125-215A

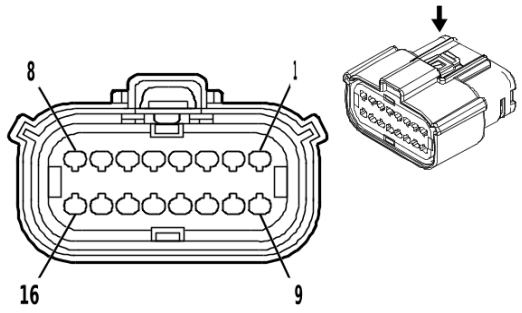
X202 Instrument Panel Harness to Engine Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	YE/ VT	2378	I	—	Right Rear Outer Parking Assist Sensor Signal	A	0.5	YE/ VT	2378	II	—
B	0.5	YE/ WH	2377	I	—	Right Rear Middle Parking Assist Sensor Signal	B	0.5	YE/ WH	2377	II	—
C	0.5	RD/ WH	840	I	—	Secondary Fused Battery Positive Voltage 8	C	0.5	RD/ BU	840	II	—
D - E	—	—	—	—	—	Not Occupied	D - E	—	—	—	—	—
F	—	—	—	—	—	Engine Control Vehicle Sensors Low Reference 1	F	0.5	BK/ GY	626	II	—
G	0.5	BN/ WH	2374	I	—	Object Sensor Supply Voltage	G	0.5	BN/ WH	2374	II	—

X202 Instrument Panel Harness to Engine Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
H	0.5	YE	2375	I	—	Left Rear Outer Parking Assist Sensor Signal	H	0.5	YE	2375	II	—
J	0.5	BK/ GY	2379	I	—	Object Sensor Low Reference	J	0.5	BK/ GY	2379	II	—
K - L	—	—	—	—	—	Not Occupied	K - L	—	—	—	—	—
M	0.5	RD/ WH	4892	I	—	Auxiliary Battery Relay Control	M	0.5	RD/ WH	4892	II	—
N	—	—	—	—	—	Not Occupied	N	—	—	—	—	—
P	—	—	—	—	—	Brake Position Sensor Signal	P	0.5	WH/ GN	5380	II	—
R	0.5	WH	5359	I	—	Engine Control Sensors 5 Volt Reference 1 Brake Apply Sensor Voltage Reference	R	0.5 0.5	BU/ RD WH	460 5359	II II	(L8T +C60)/LV1 LWN
S	0.5	YE/ BU	2376	I	—	Left Rear Middle Parking Assist Sensor Signal	S	0.5	YE/ BU	2376	II	—

X204 Body Harness to Headliner Harness



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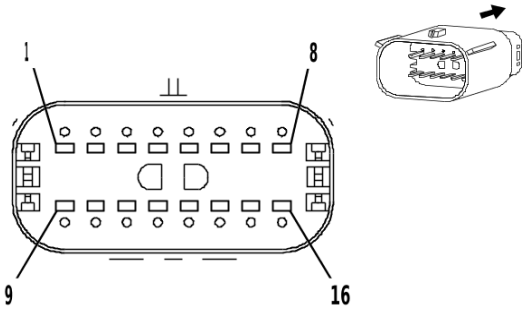


2548390

Connector Part Information

Harness Type: Body
OEM Connector: 13778557
Service Connector: 13584788
Description: 16-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Headliner
OEM Connector: 33372790
Service Connector: 19369662
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300432	J-35616-2A (GY)	J-38125-217
II	19119395	J-35616-3 (GY)	J-38125-217
III	19119842	J-35616-3 (GY)	J-38125-217

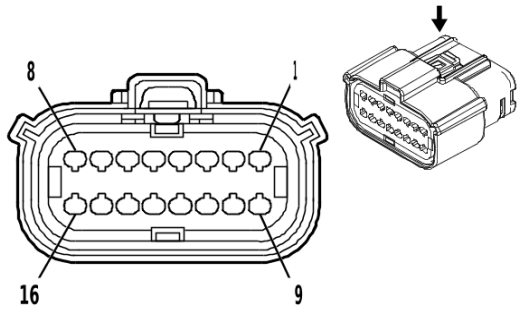
X204 Body Harness to Headliner Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35 0.5	BU BU	7641 7641	I I	— —	Frontview Camera 2 Signal [+] Frontview Camera 2 Signal [+]	1	0.5 0.5	BU BU	7641 7641	II III	— —
2	0.35 0.5	BU BU	7642 7642	I I	— —	Frontview Camera 2 Signal [-] Frontview Camera 2 Signal [-]	2	0.5 0.5	WH BU	7642 7642	II III	— —
3	0.5	BK	6799	I	—	Camera Shield Ground Camera Shield Ground	3	0.5 0.5	BK BK	6799 6799	III II	— —
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage 2	5	0.5	VT/WH	239	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X204 Body Harness to Headliner Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.8	GN	654	I	—	Cellular Telephone Microphone Low Reference	7	0.8	GN	654	III	—
8	0.8	GY	655	I	—	Cellular Telephone Microphone Signal	8	0.8	GY	655	III	—
9	0.5	GN	24	I	—	Backup Lamp Control	9	0.5	GN/ WH	24	II	—
10	0.5	BK	1850	I	—	Ground 18	10	0.5	BK	1850	II	—
11	0.5	GY/ WH	3153	I	—	Lane Departure Warning Disable Switch Signal	11	0.5	GY/ WH	3153	II	—
12	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	12	0.5	GN	5060	II	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	WH	3152	I	—	Lane Departure Warning Indicator Control	14	0.5	WH	3152	II	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	0.5	RD/ GN	3140	I	—	Secondary Fused Battery Positive Voltage 31	16	0.5	RD/ GN	3140	II	—

X205 Headliner Harness to Body Harness



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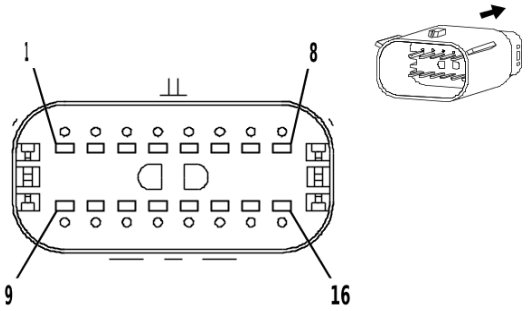


2548390

Connector Part Information

Harness Type: Headliner
OEM Connector: 13778557
Service Connector: 13584788
Description: 16-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 33372790
Service Connector: 19369662
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300432	J-35616-2A (GY)	J-38125-217
II	19119395	J-35616-3 (GY)	J-38125-217
III	19119842	J-35616-3 (GY)	J-38125-217

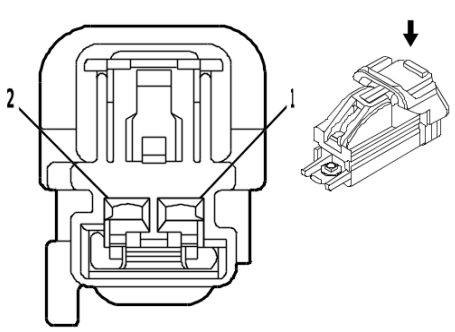
X205 Headliner Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BN	441	I	—	Run Ignition 3 Voltage 4	1	0.35	BN	441	III	—
2	0.5	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	2	0.35	OG	1925	III	—
3	0.5	PK/BK	5265	I	—	Auxiliary HVAC Rear Control Signal	3	0.5	PK/BK	5265	II	—
4	0.35	GY	2599	I	—	Rear Mode Door Actuator Signal	4	0.35	GY	2599	III	—
5	0.5	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	5	0.35	WH	1924	III	—
6	0.35	BN	341	I	—	Run Ignition 3 Voltage 3	6	0.35	BN	341	III	—
7	1 0.8	BK BK	1850 1850	I I	(C69/DH6)-YF1 DH6+ (-C69/YF1)	Ground 18 Ground 18	7	1	BK	1850	III	—

X205 Headliner Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	BU/ WH	149	I	—	Courtesy Lamp Control	8	0.5	BU/ WH	149	II	—
9	0.5	BK/ WH	351	I	—	Ground 3	9	0.35	BK/ WH	351	III	—
10	0.5	BN	5263	I	—	Auxiliary HVAC Rear Temperature Signal	10	0.5	BN	5263	II	—
11	0.35	GN	6134	I	—	Body Control Module LIN Bus 3	11	0.35	GN	6134	III	—
12	0.35	OG	2775	I	—	Rear Air Temperature Door Actuator Control	12	0.35	OG	2775	III	—
13	0.5	PU/ WH	5264	I	—	Auxiliary HVAC Rear Mode Signal	13	0.5	PU/ WH	5264	II	—
14	0.5	BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	14	0.35	BU	1926	III	—
15	0.35	BN/ WH	230	I	—	Instrument Panel Lamp Dimming Control	15	0.35	BN/ WH	230	III	—
16	0.8	OG	1732	I	—	Control Module 12V Reference 3	16	0.8	OG	1732	III	—

X206 Instrument Panel Harness to Instrument Panel Harness



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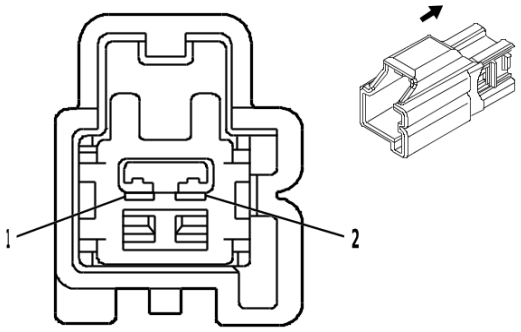


1853532

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846794
Service Connector: 19367525
Description: 2-Way F 1.5 YESC Series (L-GY)

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846798
Service Connector: 19367526
Description: 2-Way M 1.5 Series (L-GY)

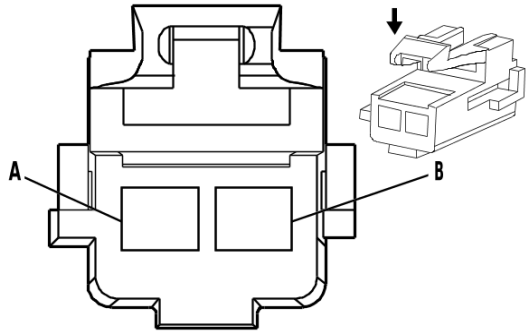
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X206 Instrument Panel Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	L-BU	20	I	—	Stop Lamp Control	1	0.5	L-BU	20	II	—
2	0.5	BK	350	I	—	Ground 3	2	0.5	BK	350	II	—

X220 Instrument Panel Harness to Park Brake Switch Jumper Harness



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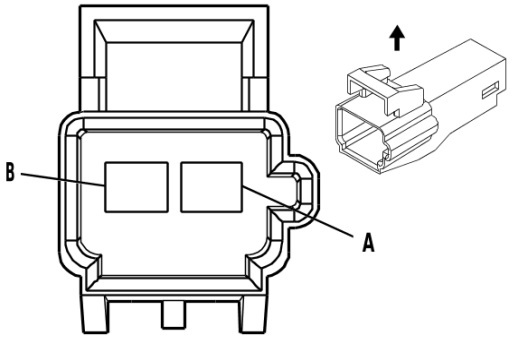


788072

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12129082
Service Connector: 15305896
Description: 2-Way F 280 Metri-Pack Flexlock Series (GY)

Connector Part Information

Harness Type: Park Brake Switch Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

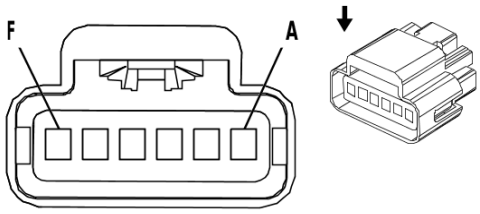
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X220 Instrument Panel Harness to Park Brake Switch Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	BU	1134	I	—	Park Brake Switch Signal	A	0.35	BU	1134	II	—
B	—	—	—	—	—	Not Occupied	B	—	—	—	—	—

X225 Accelerator Pedal Position Sensor Harness to Instrument Panel Harness



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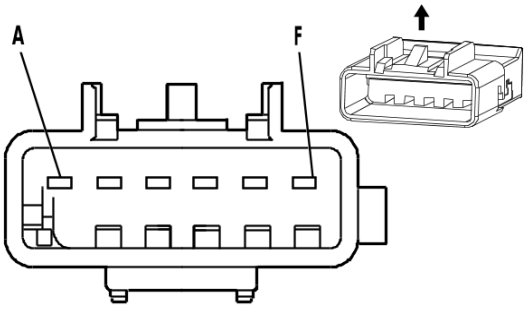


1464340

Connector Part Information

Harness Type: Accelerator Pedal Position Sensor
OEM Connector: 13667186
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 GT FBT Series (BK)

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15332142
Service Connector: 19368863
Description: 6-Way M 150 GT Series (BK)

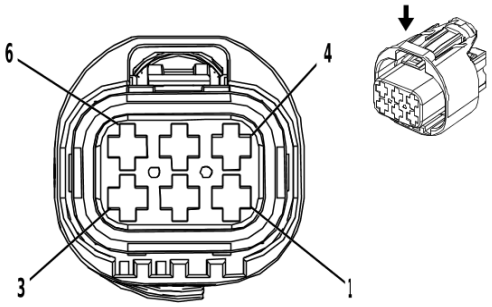
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X225 Accelerator Pedal Position Sensor Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	TN	1274	I	—	Accelerator Pedal Position 5V Reference 2	A	0.35	BN/ RD	1274	II	—
B	0.35	WH/ BK	1164	I	—	Accelerator Pedal Position 5 Volt Reference 1	B	0.35	WH/ RD	1164	II	—
C	0.35	D-BU	1161	I	—	Accelerator Pedal Position Signal 1	C	0.35	YE/ WH	1161	II	—
D	0.35	BN	1271	I	—	Accelerator Pedal Position Low Reference 1	D	0.35	BK/ BU	1271	II	—
E	0.35	PU	1272	I	—	Accelerator Pedal Position Low Reference 2	E	0.35	BK/ VT	1272	II	—
F	0.35	L-BU	1162	I	—	Accelerator Pedal Position Signal 2	F	0.35	L-GN/ WH	1162	II	—

X291 Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness



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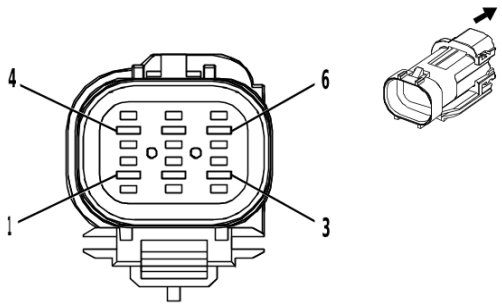


2042939

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Extension
OEM Connector: 10865192
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 2.8 Junior Power Timer Series, Sealed (BK)

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Extension
OEM Connector: 10865189
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M 2.8 Series, Sealed (BK)

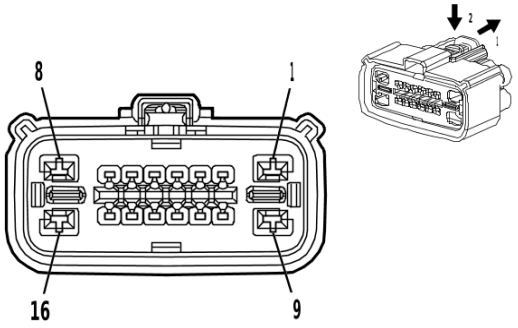
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X291 Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	L-GN	6840	I	—	Auxiliary Device 2 Switched Voltage	1	2.5	L-GN	6840	II	—
2	2.5	L-GN	6839	I	—	Auxiliary Device 1 Switched Voltage	2	2.5	L-GN	6839	II	—
3	0.5	D-BU	6843	I	—	Auxiliary Device Relay 2 Control	3	0.5	D-BU	6843	II	—
4	0.5	BK/ L-BU	6842	I	—	Auxiliary Device Relay 1 Control	4	0.5	BK/ L-BU	6842	II	—
5	1	RD/ WH	5440	I	—	Secondary Fused Battery Positive Voltage 54	5	1	RD/ WH	5440	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X306 Body Harness to Passenger Seat Harness



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4283035

Connector Part Information

Harness Type: Body
OEM Connector: 33320906
Service Connector: 19368738
Description: 16-Way F 1.5, 2.8 Series, Sealed (YE)

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	13578908	J-35616-35 (VT)	J-38125-12A
III	Not Required	No Tool Required	No Tool Required

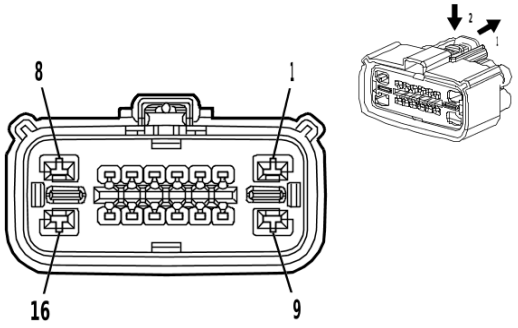
X306 Body Harness to Passenger Seat Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	BK	1850	II	—	Ground 18	1	3	BK	1850	III	—
2 - 4	—	—	—	—	—	Not Occupied	2 - 4	—	—	—	—	—
5	0.5	GN	2116	I	—	Passenger Seat Belt Pretensioner High Control	5	0.5	GN	2116	III	—
6	0.5	OG	2117	I	—	Passenger Seat Belt Pretensioner Low Control	6	0.5	OG	2117	III	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—
9	3	RD/WH	3540	II	—	Secondary Fused Battery Positive Voltage 35	9	3	RD/WH	3540	III	—
10	0.5	GN	2136	I	—	Right Front Seat Side Air Bag Low Control	10	0.5	GN	2136	III	—
11	0.5	TN/WH	2135	I	—	Right Front Seat Side Air Bag High Control	11	0.5	TN/WH	2135	III	—

X306 Body Harness to Passenger Seat Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

X307 Body Harness to Driver Seat Harness



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4283035

Connector Part Information

Harness Type: Body
OEM Connector: 33320906
Service Connector: 19368738
Description: 16-Way F 1.5, 2.8 Series, Sealed (YE)

Connector Part Information

Harness Type: Driver Seat
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	13578908	J-35616-35 (VT)	J-38125-12A
III	19300432	J-35616-2A (GY)	J-38125-217
IV	Not Required	No Tool Required	No Tool Required

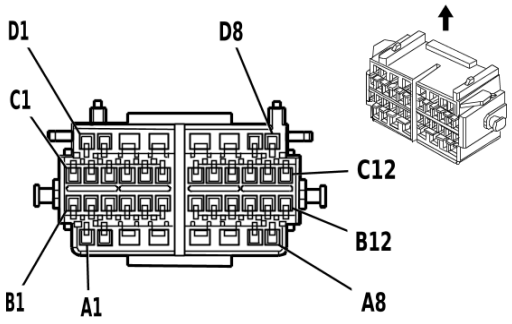
X307 Body Harness to Driver Seat Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	RD/WH	3540	II	—	Secondary Fused Battery Positive Voltage 35	1	3	RD/WH	3540	IV	—
2	0.5	PK	5057	III	—	Seat Position Switch Low Reference	2	0.5	PK	5057	IV	—
3	0.5	TN/WH	238	III	—	Driver Seat Belt Switch Signal	3	0.5	TN/WH	238	IV	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	TN/WH	2118	I	—	Driver Seat Belt Pretensioner High Control	5	0.5	TN/WH	2118	IV	—
6	0.5	OG/BK	2119	I	—	Driver Seat Belt Pretensioner Low Control	6	0.5	OG/BK	2119	IV	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—
9	3	BK	450	II	—	Ground 4	9	3	BK	450	IV	—

X307 Body Harness to Driver Seat Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.5	YE/ BK	2138	I	—	Left Front Seat Side Air Bag Low Control	10	0.5	YE/ BK	2138	IV	—
11	0.5	BN	2137	I	—	Left Front Seat Side Air Bag High Control	11	0.5	BN	2137	IV	—
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

X318 Instrument Panel Harness to Body Harness



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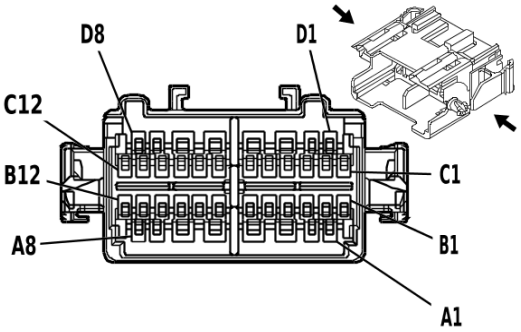


851471

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15448130
Service Connector: 89046970
Description: 40-Way F 150, 280 GT Series (L-GY)

Connector Part Information

Harness Type: Body
OEM Connector: 15416977
Service Connector: 19331377
Description: 40-Way M 150, 280 GT Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	13575500	J-35616-3 (GY)	J-38125-215A
IV	13575505	J-35616-5 (PU)	J-38125-215A
V	13575507	J-35616-5 (PU)	J-38125-215A
VI	13576358	J-35616-5 (PU)	J-38125-215A

X318 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.8	OG	1853	I	—	Right Front Midrange Speaker [+] Control	A1	0.8	OG	1853	III	—
A2	0.8	GN	1953	I	—	Right Front Midrange Speaker [-] Control	A2	0.8	GN	1953	III	—
A3	0.5	BK/WH	1751	II	—	Ground 17	A3	0.5	BK/WH	1751	VI	—
A4	0.5	TN/BK	371	II	—	Passenger Supplemental Inflatable Restraint Disable Switch Signal	A4	0.5	TN/BK	371	VI	—
A5	0.5	BU/YE	6105	II	—	High Speed GMLAN Serial Data [+] 2	A5	0.5	BU/YE	6105	VI	—
A6	0.5	WH	6106	II	—	High Speed GMLAN Serial Data [-] 2	A6	0.5	WH	6106	VI	—

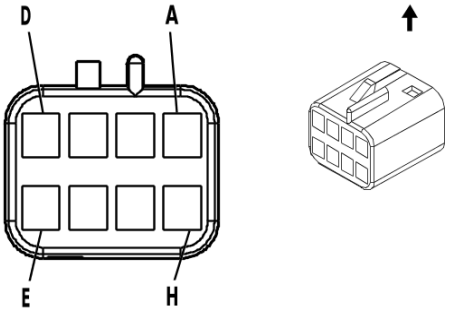
X318 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A7	1	RD/WH	440	I	—	Secondary Fused Battery Positive Voltage 4	A7	1	RD/WH	440	III	—
A8	0.35	YE/BK	1181	I	—	Right Rear Door Open Switch Signal	A8	0.35	YE/BK	1181	III	—
B1	0.8	BU	1320	I	—	Center High Mounted Stop Lamp Control 2	B1	0.8	BU	1320	III	—
B2	—	—	—	—	—	Not Occupied	B2	—	—	—	—	—
B3	0.8	TN	1855	I	—	Right Rear Midrange Speaker [+] Control	B3	1	TN	1855	III	—
B4	0.8	OG	1955	I	—	Right Rear Midrange Speaker [-] Control	B4	1	OG	1955	III	—
B5	—	—	—	—	—	Not Occupied	B5	—	—	—	—	—
B6	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	B6	0.5	GN	5060	III	—
B7	0.5	BU/WH	6619	I	—	Front Middle Impact Discriminating Sensor Low Reference	B7	0.5	BU/WH	6619	III	—
B8	0.5	BN/WH	6618	I	—	Front Middle Impact Discriminating Sensor Signal	B8	0.5	BN/WH	6618	III	—
B9	0.35	WH	3152	I	—	Lane Departure Warning Indicator Control	B9	0.5	WH	3152	III	—
B10	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	B10	0.35	GN	5060	III	—
B11	0.35	GN	6134	I	—	Body Control Module LIN Bus 3	B11	0.35	GN	6134	III	—
B12	0.35	GY/WH	3153	I	—	Lane Departure Warning Disable Switch Signal	B12	0.5	GY/WH	3153	III	—
C1	0.8	GN	654	I	—	Cellular Telephone Microphone Low Reference	C1	0.8	GN	654	III	—
C2	0.35	PK	1139	I	—	Run/Crank Ignition 1 Voltage 11	C2	0.35	PK	1139	III	—
C3	0.8	TN	1859	I	—	Left Rear Midrange Speaker [+] Control	C3	1	TN	1859	III	—

X318 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
C4	0.8	WH	1959	I	—	Left Rear Midrange Speaker [-] Control	C4	1	WH	1959	III	—
C5	0.8	GY	655	I	—	Cellular Telephone Microphone Signal	C5	0.8	GY	655	III	—
C6	—	—	—	—	—	Not Occupied	C6	—	—	—	—	—
C7	0.35	GN	5926	I	—	Rear Body Opening Open Switch Signal	C7	0.35	GN	5926	III	—
C8	0.35	PK/BK	1303	I	—	Liftgate Ajar Switch Signal 1	C8	0.35	PK/BK	1303	III	—
C9	0.35	TN/WH	746	I	—	Right Front Door Ajar Switch Signal	C9	0.35	TN/WH	746	III	—
C10	0.35	GN	1177	I	—	Right Front Door Open Switch Signal	C10	0.35	GN	1177	III	—
C11	0.5	TN	126	I	—	Left Front Door Open Switch Signal	C11	0.35	TN	126	III	—
C12	0.35	GY/BK	745	I	—	Left Front Door Ajar Switch Signal	C12	0.35	GY/BK	745	III	—
D1	0.8	BU	1857	I	—	Left Front Midrange Speaker [+] Control	D1	0.8	BU	1857	III	—
D2	0.8	BU	1957	I	—	Left Front Midrange Speaker [-] Control	D2	0.8	BU	1957	III	—
D3	0.5 0.8	OG OG	1732 1732	II II	— —	Control Module 12V Reference 3 Control Module 12V Reference 3	D3	0.8	OG	1732	V	—
D4	0.5	PK	353	II	—	Passenger Supplemental Inflatable Restraint Suppression Indicator Control	D4	0.5	PK	353	VI	—
D5	0.5	PK/BK	780	II	—	Driver Door Lock Switch Lock Signal	D5	0.35	PK/BK	780	IV	—
D6	0.5	OG/BK	781	II	—	Driver Door Lock Switch Unlock Signal	D6	0.35	OG/BK	781	IV	—
D7	0.35	BU	244	I	—	Passenger Door Lock Switch Lock Control	D7	0.35	BU	244	III	—
D8	0.35	BU	245	I	—	Passenger Door Lock Switch Unlock Control	D8	0.35	BU	245	III	—

X319 Auxiliary Heater Front Harness to Body Harness



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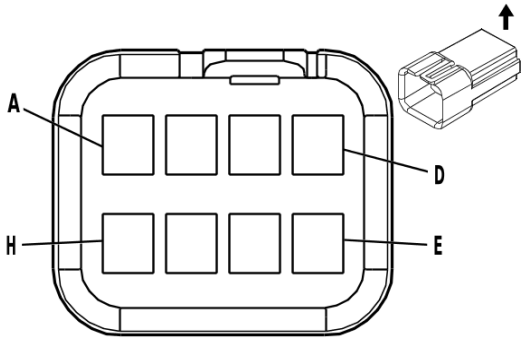


62434

Connector Part Information

Harness Type: Auxiliary Heater Front
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12045688
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

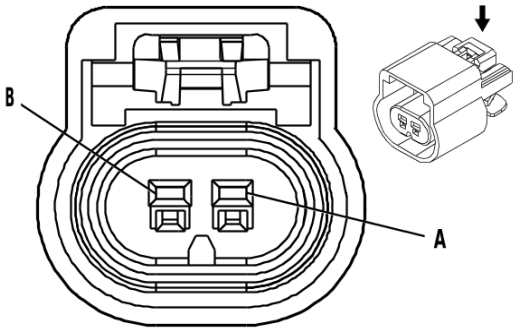
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X319 Auxiliary Heater Front Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	A	0.35	WH	1924	II	—
B	0.35	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	B	0.35	OG	1925	II	—
C	0.35	D-BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	C	0.35	D-BU	1926	II	—
D	0.35	BN/ WH	230	I	—	Instrument Panel Lamp Dimming Control	D	0.35	BN/ WH	230	II	—
E	0.35	BK	450	I	—	Ground 4	E	0.35	BK	450	II	—
F - H	—	—	—	—	—	Not Occupied	F - H	—	—	—	—	—

X323 Air Bag Jumper Harness to Body Harness



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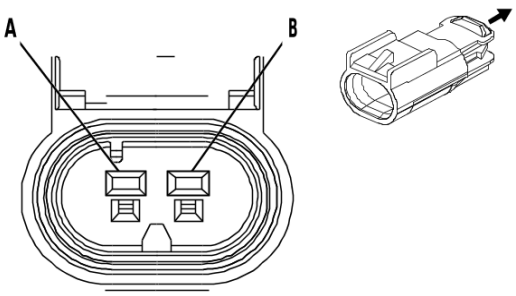


681875

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13510099
Service Connector: 13580103
Description: 2-Way M 150 GT Series, Sealed (BK)

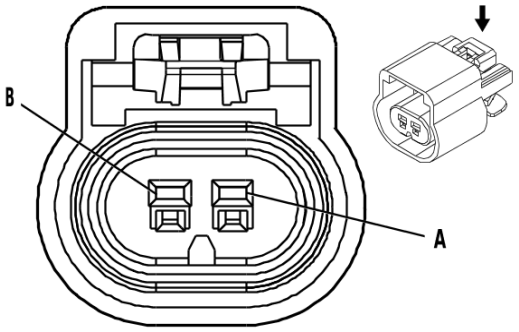
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X323 Air Bag Jumper Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	GY/ BK	6621	I	—	Left Middle Side Impact Sensor Low Reference	A	0.5	GY/ BK	6621	II	—
B	0.5	D-GN/ WH	6620	I	—	Left Middle Side Impact Sensor Signal	B	0.5	D-GN/ WH	6620	II	—

X324 Air Bag Jumper Harness to Body Harness



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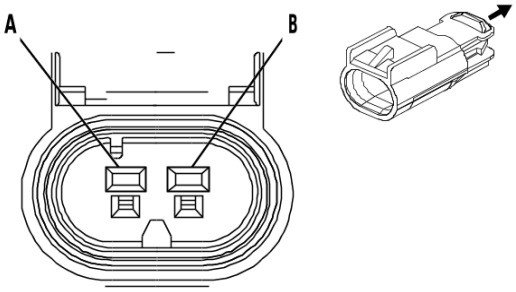


681875

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13510099
Service Connector: 13580103
Description: 2-Way M 150 GT Series, Sealed (BK)

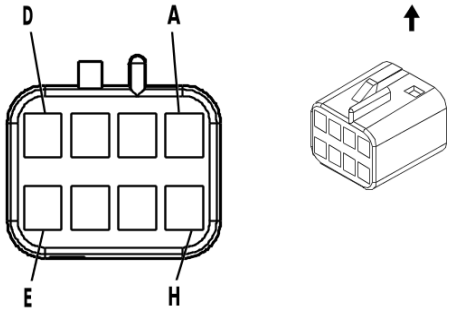
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X324 Air Bag Jumper Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	L-GN/WH	6625	I	—	Right Middle Side Impact Sensor Low Reference	A	0.5	L-GN/WH	6625	II	—
B	0.5	L-BU/BK	6624	I	—	Right Middle Side Impact Sensor Signal	B	0.5	L-BU/BK	6624	II	—

X329 Instrument Panel Harness to Body Harness



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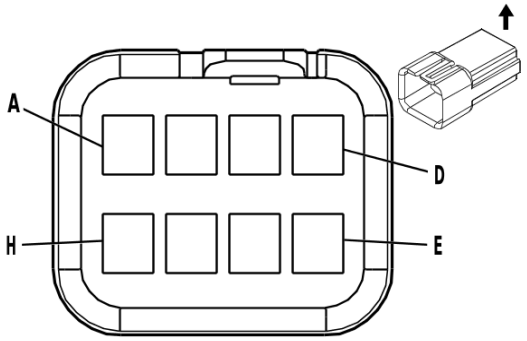


62434

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047886
Service Connector: 13584485
Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12089526
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

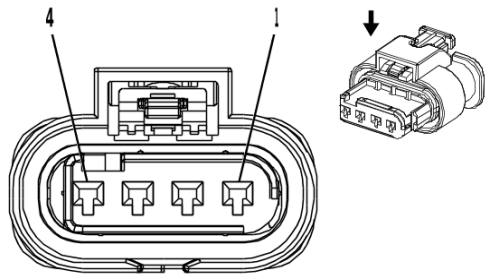
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X329 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A - C	—	—	—	—	—	Not Occupied	A - C	—	—	—	—	—
D	0.5	L-GN	24	I	—	Backup Lamp Control	D	0.5	L-GN	24	II	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage 2	E	0.5	PK	239	II	—
F	0.5	L-GN	24	I	—	Backup Lamp Control	F	0.5	L-GN	24	II	—
G - H	—	—	—	—	—	Not Occupied	G - H	—	—	—	—	—

X330 Instrument Panel Harness to Body Harness



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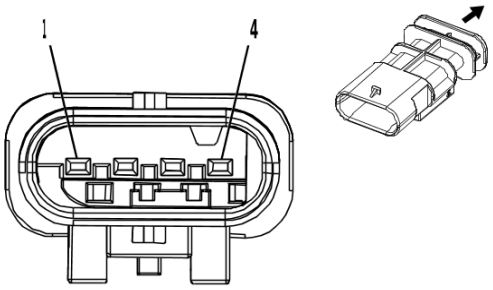


2684557

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13854531
Service Connector: 13586137
Description: 4-Way F 1.2 Series, Sealed (BK with YE Cover)

Connector Part Information

Harness Type: Body
OEM Connector: 13854529
Service Connector: 19299698
Description: 4-Way M 1.2 Series, Sealed (YE)

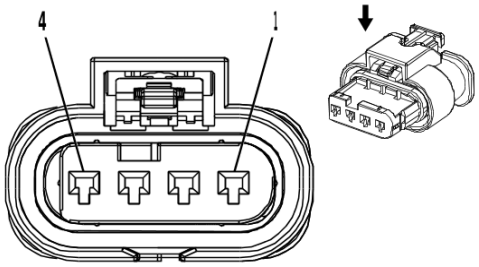
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required

X330 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	TN	3021	I	—	Steering Wheel Air Bag Stage 1 High Control	1	0.5	TN	3021	II	—
2	0.5	BN	3020	I	—	Steering Wheel Air Bag Stage 1 Low Control	2	0.5	BN	3020	II	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

X331 Instrument Panel Harness to Body Harness



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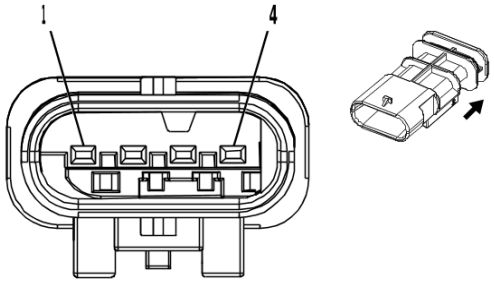


2684563

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13854532
Service Connector: 19368563
Description: 4-Way F 1.2 Series, Sealed (YE)

Connector Part Information

Harness Type: Body
OEM Connector: 13854530
Service Connector: 13586576
Description: 4-Way M 1.2 Series, Sealed (YE)

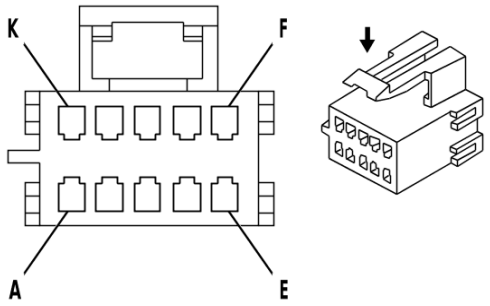
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required

X331 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE	3025	I	—	Passenger Instrument Panel Air Bag Stage 1 High Control	1	0.5	YE	3025	II	—
2	0.5	OG	3024	I	—	Passenger Instrument Panel Air Bag Stage 1 Low Control	2	0.5	OG	3024	II	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

X400 Right Rear Cargo Door Harness to Body Harness



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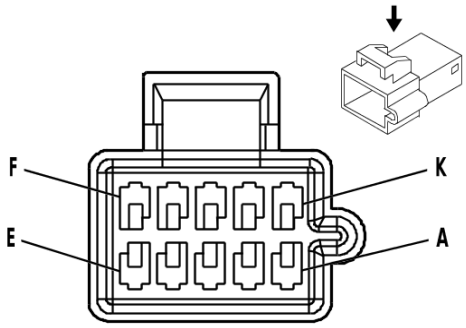


808703

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 15324054
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15324758
Service Connector: 19179279
Description: 10-Way M 150 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	13505668	J-35616-3 (GY)	J-38125-12A
III	13575463	J-35616-3 (GY)	J-38125-12A

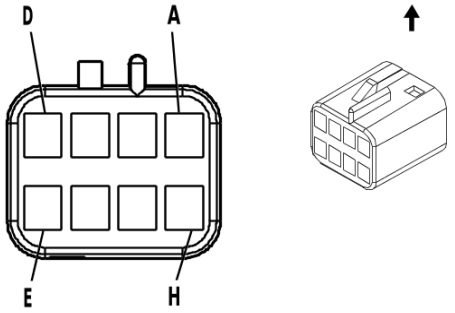
X400 Right Rear Cargo Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	TN	1855	I	—	Right Rear Midrange Speaker [+] Control	A	1	TN	1855	II	—
B	1	OG	1955	I	—	Right Rear Midrange Speaker [-] Control	B	1	OG	1955	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.35	BK/WH	1051	I	—	Ground 10	D	1	BK/WH	1051	II	—
E	0.35	D-BU	245	I	—	Passenger Door Lock Switch Unlock Control	E	0.35	D-BU	245	III	—
F	1	GY	295	I	—	Door Lock Actuator Lock Control	F	1	GY	295	II	—
G	1	TN/BK	1095	I	—	Right Rear Door Lock Actuator Unlock Control	G	1	TN/BK	1095	II	—

X400 Right Rear Cargo Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
H	0.35	L-GN	5926	I	—	Rear Body Opening Open Switch Signal	H	0.35	L-GN	5926	III	—
J	0.35	PK/ BK	1303	I	—	Liftgate Ajar Switch Signal 1	J	0.35	PK/ BK	1303	III	—
K	0.35	L-BU	244	I	—	Passenger Door Lock Switch Lock Control	K	0.35	L-BU	244	III	—

X403 Right Rear Cargo Door Harness to Body Harness (-Cutaway)



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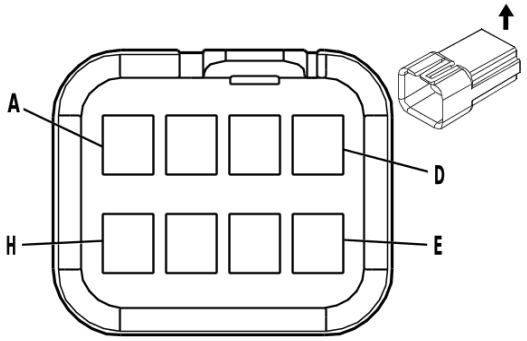


62434

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12045688
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

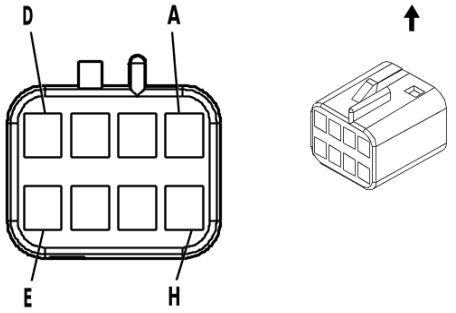
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X403 Right Rear Cargo Door Harness to Body Harness (-Cutaway)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	YE	7641	I	—	Frontview Camera 2 Signal [+]	A	0.5	D-BU	7641	II	—
B	0.5	L-BU	7642	I	—	Frontview Camera 2 Signal [-]	B	0.5	L-BU	7642	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.5	BK	351	I	—	Ground 3	D	0.35	BK/ WH	351	II	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage 2	E	0.5	PK	239	II	—
F	0.5	L-GN	24	I	—	Backup Lamp Control	F	0.5	L-GN	24	II	—
G	—	—	—	—	—	Not Occupied	G	—	—	—	—	—
H	0.5	Bare	6799	I	—	Camera Shield Ground	H	0.5	Bare	6799	II	—

X403 Rearview Camera Harness to Body Harness (Cutaway)



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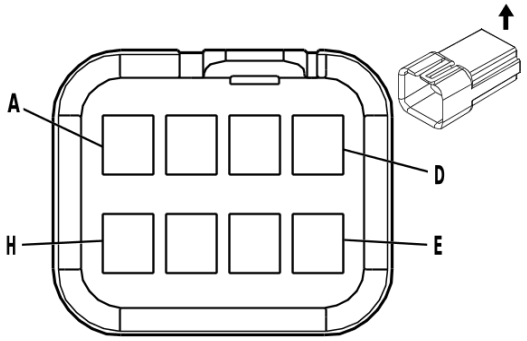


62434

Connector Part Information

Harness Type: Rearview Camera
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12045688
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

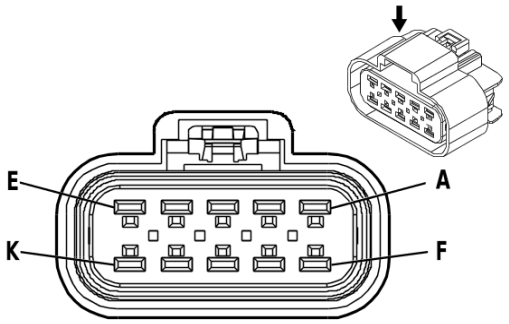
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X403 Rearview Camera Harness to Body Harness (Cutaway)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	WH	7641	I	—	Frontview Camera 2 Signal [+]	A	0.35 0.5	BU BU	7641 7641	II II	— —
						Frontview Camera 2 Signal [+]						
B	0.5	BU	7642	I	—	Frontview Camera 2 Signal [-]	B	0.35 0.5	BU BU	7642 7642	II II	— —
						Frontview Camera 2 Signal [-]						
C - D	—	—	—	—	—	Not Occupied	C - D	—	—	—	—	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage 2	E	0.5	PK	239	II	—
F	0.5	GN	24	I	—	Backup Lamp Control	F	0.5	GN	24	II	—
G	0.5	BK/ WH	351	I	—	Ground 3	G	0.35	BK/ WH	351	II	—
H	0.5	Bare	6799	I	—	Camera Shield Ground	H	0.5	Bare	6799	II	—

X405 Chassis Harness to Chassis Harness



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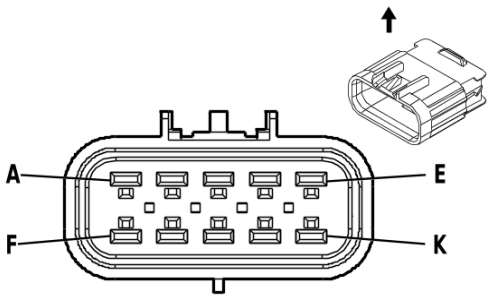


655819

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326660
Service Connector: 88986262
Description: 10-Way F 280 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326661
Service Connector: 88986245
Description: 10-Way M 280 GT Series, Sealed (BK)

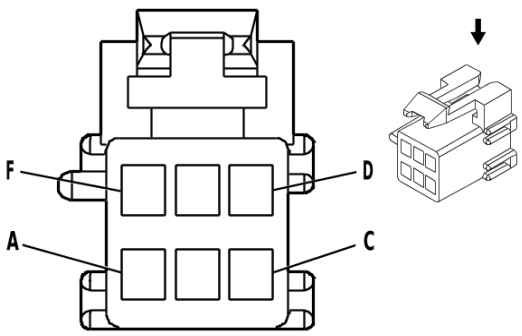
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580824	J-35616-4A (PU)	J-38125-215A
II	13580826	J-35616-5 (PU)	J-38125-215A
III	19368626	J-35616-5 (PU)	J-38125-215A

X405 Chassis Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A - B	—	—	—	—	—	Not Occupied	A - B	—	—	—	—	—
C	0.8	BU	1320	I	—	Center High Mounted Stop Lamp Control 2	C	0.8	BU	1320	II	—
D	—	—	—	—	—	Left Rear Turn Signal Lamp Control	D	1	YE	618	II	—
E						Right Rear Turn Signal Lamp Control	E	1 1	GN GN	619 619	II III	— —
F	—	—	—	—	—	Trailer Park Lamp Control	F	1	BN	2109	II	—
G	—	—	—	—	—	Ground 1	G	1	BK	150	II	—
H	—	—	—	—	—	Trailer Backup Lamp Control	H	1	GN	1624	II	—
J	—	—	—	—	—	Not Occupied	J	—	—	—	—	—
K	—	—	—	—	—	Courtesy Lamp Control	K	0.8	BU/ WH	149	II	—

X407 Auxiliary HVAC Harness to Body Harness



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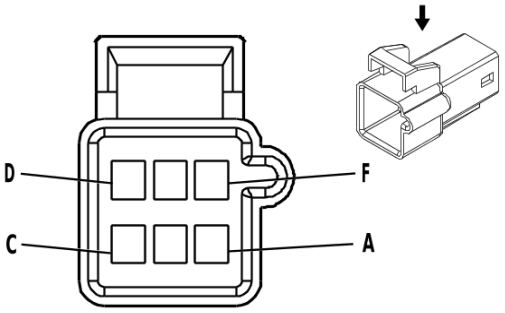


40425

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12064762
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 Metri-Pack Series (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 12064763
Service Connector: 12101876
Description: 6-Way M 150 Metri-Pack Series (GY)

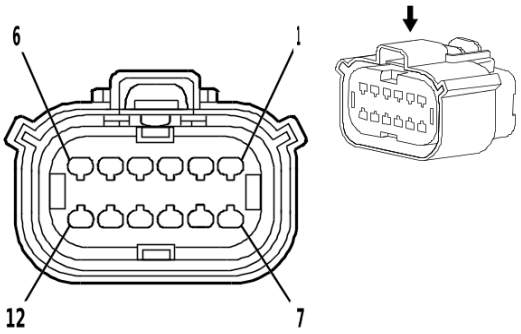
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X407 Auxiliary HVAC Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	OG	2775	I	—	Rear Air Temperature Door Actuator Control	A	0.35	OG	2775	II	—
B	0.35	D-BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	B	0.35	D-BU	1926	II	—
C	0.35	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	C	0.35	WH	1924	II	—
D	0.35	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	D	0.35	OG	1925	II	—
E	0.35	BN	341	I	—	Run Ignition 3 Voltage 3	E	0.35	BN	341	II	—
F	0.35	GY	2599	I	—	Rear Mode Door Actuator Signal	F	0.35	GY	2599	II	—

X408 Rear Fascia Harness to Chassis Harness



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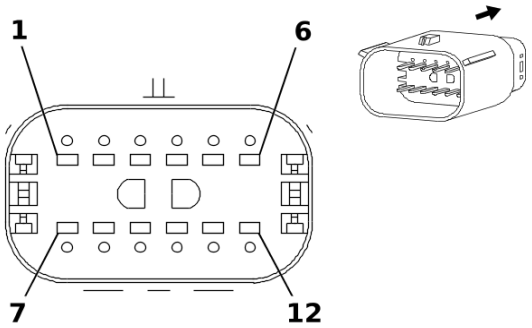


1825167

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13653762
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33369138
Service Connector: 19369242
Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	19119395	J-35616-3 (GY)	J-38125-217

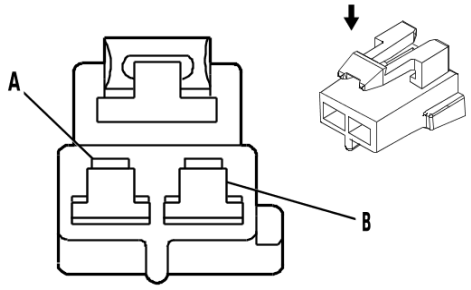
X408 Rear Fascia Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE/WH	2377	I	—	Right Rear Middle Parking Assist Sensor Signal	1	0.5	YE/WH	2377	II	—
2	0.5	YE/VT	2378	I	—	Right Rear Outer Parking Assist Sensor Signal	2	0.5	YE/VT	2378	II	—
3	0.5	GY	2379	I	—	Object Sensor Low Reference	3	—	—	—	—	—
4	0.5	BN/WH	2374	I	—	Object Sensor Supply Voltage	4	0.5	BN/WH	2374	II	—
5	0.5	YE	2375	I	—	Left Rear Outer Parking Assist Sensor Signal	5	0.5	YE	2375	II	—

X408 Rear Fascia Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	YE/ BU	2376	I	—	Left Rear Middle Parking Assist Sensor Signal	6	0.5	YE/ BU	2376	II	—
7	0.5	BK	2150	I	—	Ground 21	7	0.5	BK	2150	II	—
8	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	8	0.5	GN	5060	II	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	GY/ YE	5853	I	—	Driver Side Side Object Detection LED Signal 1	10	0.5	GY/ YE	5853	II	—
11	0.5	GY	5861	I	—	Passenger Side Object Detection LED Signal 1	11	0.5	GY	5861	II	—
12	0.5	RD/ GN	3140	I	—	Secondary Fused Battery Positive Voltage 31	12	0.5	RD/ GN	3140	II	—

X409 Auxiliary HVAC Harness to Body Harness



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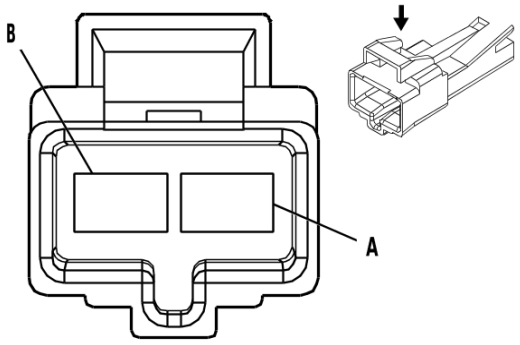


38284

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12064749
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12064750
Service Connector: 19368866
Description: 2-Way M 480 Metri-Pack Series (BK)

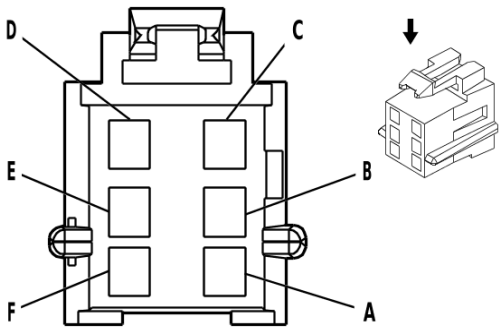
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-40 (BU)	No Tool Required
II	Not Required	J-35616-41 (BU)	No Tool Required

X409 Auxiliary HVAC Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	RD/WH	1740	I	—	Secondary Fused Battery Positive Voltage 17	A	5	RD/WH	1740	II	—
B	5	BK	850	I	—	Ground 4 Ground 8	B	5 5	BK BK	450 850	II II	— —

X410 Tail Lamp Assembly - Left Harness to Body Harness



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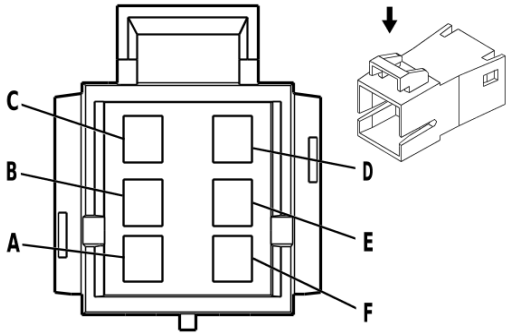


39689

Connector Part Information

Harness Type: Tail Lamp Assembly - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series (BK)

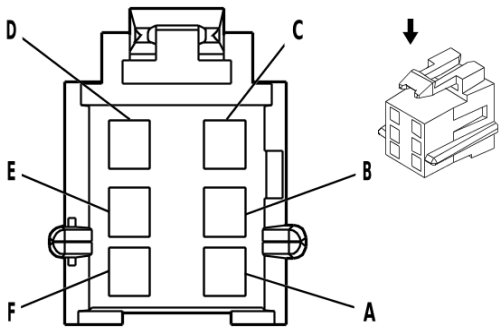
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X410 Tail Lamp Assembly - Left Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
F	0.8	GN	24	I	—	Backup Lamp Control	F	0.8	GN	24	II	—
D	0.8	BK	850	I	—	Ground 8	D	0.8	BK	850	II	—
B	1	YE	618	I	—	Left Rear Turn Signal Lamp Control	B	1	YE	618	II	—
A	0.5	BN	2509	I	—	Left Rear Park Lamp Control	A	0.5	BN	2509	II	—
C - E	—	—	—	—	—	Not Occupied	C - E	—	—	—	—	—

X411 Left Rear Cargo Door Harness to Body Harness



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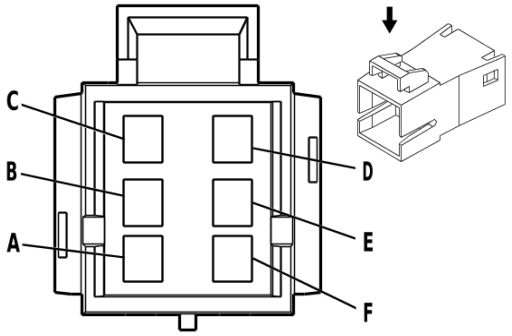


39689

Connector Part Information

Harness Type: Left Rear Cargo Door
OEM Connector: 12064752
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series (BK)

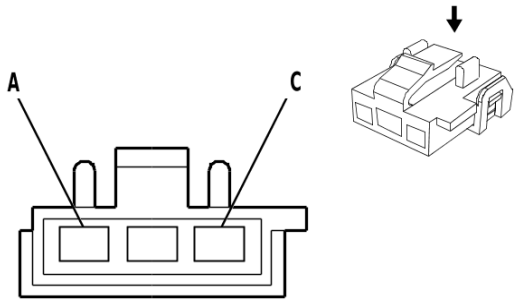
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X411 Left Rear Cargo Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	TN	1859	I	—	Left Rear Midrange Speaker [+] Control	A	1	TN	1859	II	—
B	1	WH	1959	I	—	Left Rear Midrange Speaker [-] Control	B	1	WH	1959	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	5	PU	293	I	—	Rear Defogger Grid Control	D	5	PU	293	II	—
E	3	BK	850	I	—	Ground 8	E	3	BK	850	II	—
F	—	—	—	—	—	Not Occupied	F	—	—	—	—	—

X412 Right Rear Cargo Door Harness to Body Harness



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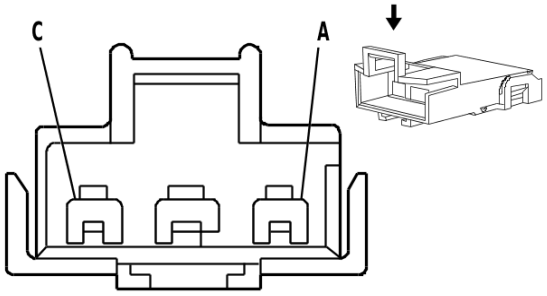


1884161

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 12020014
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F Weather Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12045681
Service Connector: 19368884
Description: 3-Way M 280, 480 Metri-Pack Series (BK)

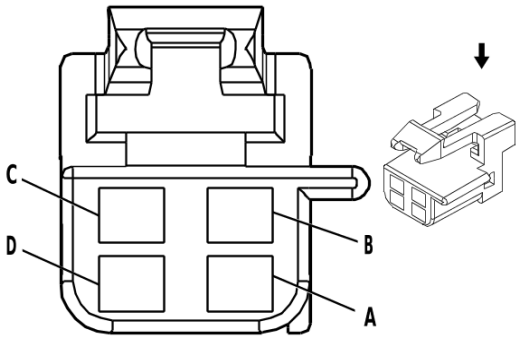
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-40 (BU)	No Tool Required
II	Not Required	J-35616-4A (PU)	No Tool Required
III	Not Required	J-35616-41 (BU)	No Tool Required
IV	Not Required	J-35616-5 (PU)	No Tool Required

X412 Right Rear Cargo Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BN	2509	II	—	Left Rear Park Lamp Control	A	0.5	BN	2509	IV	—
B	5	PU	293	I	—	Rear Defogger Grid Control	B	5	PU	293	III	—
C	0.5 3	BK BK	1050 1050	II II	— —	Ground 10 Ground 10	C	3	BK	1050	IV	—

X415 Rear Speaker Harness to Body Harness



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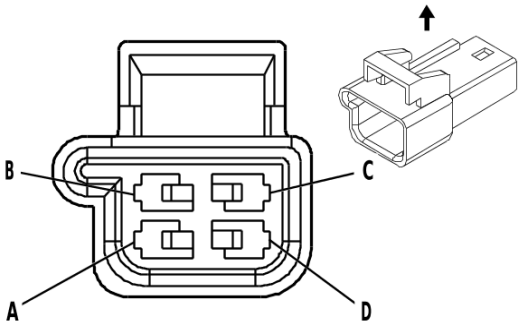


40399

Connector Part Information

Harness Type: Rear Speaker
OEM Connector: 12064760
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12065658
Service Connector: 19368719
Description: 4-Way M 150 Metri-Pack Series (BK)

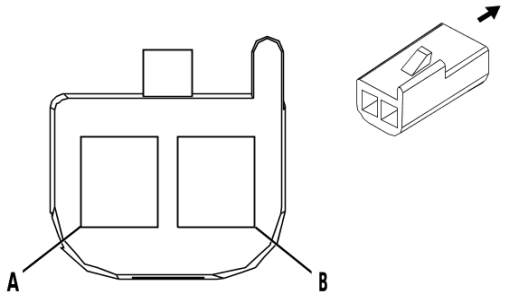
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X415 Rear Speaker Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	WH	1959	I	—	Left Rear Midrange Speaker [-] Control	A	1	WH	1959	II	—
B	1	TN	1859	I	—	Left Rear Midrange Speaker [+] Control	B	1	TN	1859	II	—
C	1	OG	1955	I	—	Right Rear Midrange Speaker [-] Control	C	1	OG	1955	II	—
D	1	TN	1855	I	—	Right Rear Midrange Speaker [+] Control	D	1	TN	1855	II	—

X419 Center High Mounted Stop Lamp Jumper Harness to Body Harness



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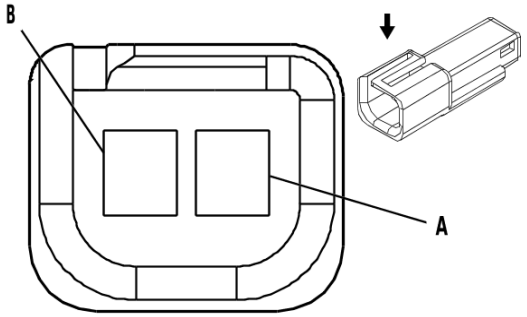


1664595

Connector Part Information

Harness Type: Center High Mounted Stop Lamp Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12048457
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

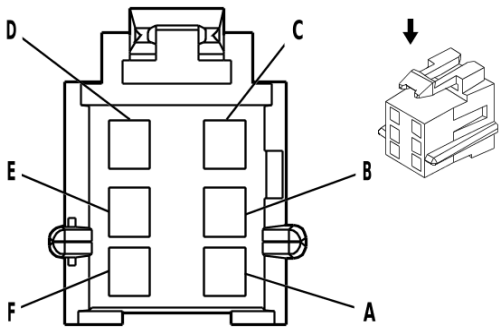
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X419 Center High Mounted Stop Lamp Jumper Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B	0.8	BK	850	I	—	Ground 8	B	0.8	BK	850	II	—
A	0.8	BU	1320	I	—	Center High Mounted Stop Lamp Control 2	A	0.8	BU	1320	II	—

X420 Tail Lamp Assembly - Right Harness to Body Harness



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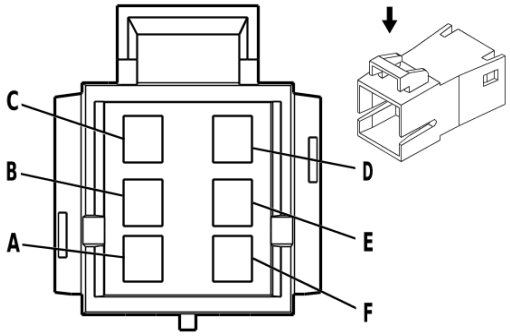


39689

Connector Part Information

Harness Type: Tail Lamp Assembly - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series (BK)

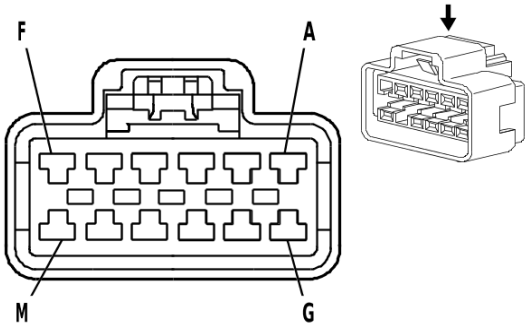
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X420 Tail Lamp Assembly - Right Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
F	0.8	GN	24	I	—	Backup Lamp Control	F	0.8	GN	24	II	—
D	0.8	BK	1050	I	—	Ground 10	D	0.8	BK	1050	II	—
B	1	GN	619	I	—	Right Rear Turn Signal Lamp Control	B	1	GN	619	II	—
A	0.5	BN	2609	I	—	Right Rear Park Lamp Control	A	0.5	BN	2609	II	—
C - E	—	—	—	—	—	Not Occupied	C - E	—	—	—	—	—

X421 Headliner Harness to Body Harness



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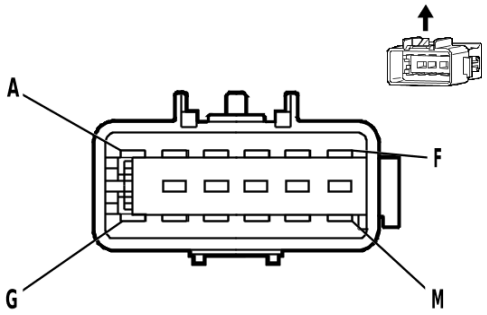


847281

Connector Part Information

Harness Type: Headliner
OEM Connector: 15326110
Service Connector: 15326110
Description: 12-Way F 280 GT Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15326942
Service Connector: 15326942
Description: 12-Way M 280 GT Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575753	J-35616-4A (PU)	J-38125-215A
II	13575505	J-35616-5 (PU)	J-38125-215A
III	13575507	J-35616-5 (PU)	J-38125-215A
IV	13576358	J-35616-5 (PU)	J-38125-215A

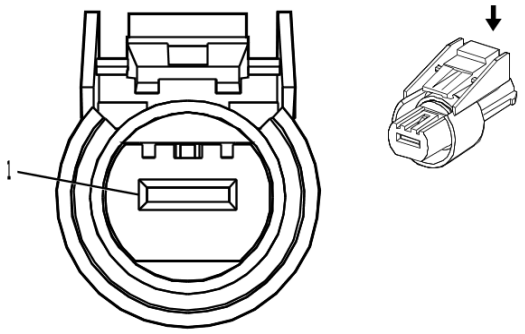
X421 Headliner Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.8	D-BU/WH	149	I	—	Courtesy Lamp Control	A	0.8	D-BU/WH	149	III	—
B	0.8	D-BU/WH	149	I	—	Courtesy Lamp Control	B	0.8	D-BU/WH	149	III	—
C	0.35	BN/WH	230	I	—	Instrument Panel Lamp Dimming Control	C	0.35	BN/WH	230	II	—
D	0.5	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	D	0.5	WH	1924	IV	—
E	0.5	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	E	0.5	OG	1925	IV	—
F	0.5	D-BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	F	0.5	D-BU	1926	IV	—
G	0.35	BN	341	I	—	Run Ignition 3 Voltage 3	G	0.35	BN	341	II	—

X421 Headliner Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
H	0.8	BK	1050	I	—	Ground 10	H	0.8	BK	1050	III	—
J	0.8	OG	1732	I	—	Control Module 12V Reference 3	J	0.8	OG	1732	III	—
K	0.5	BN	5263	I	—	Auxiliary HVAC Rear Temperature Signal	K	0.5	BN	5263	IV	—
L	0.5	PU/WH	5264	I	—	Auxiliary HVAC Rear Mode Signal	L	0.5	PU/WH	5264	IV	—
M	0.5	PK/BK	5265	I	—	Auxiliary HVAC Rear Control Signal	M	0.5	PK/BK	5265	IV	—

X460 Chassis Harness to Chassis Harness



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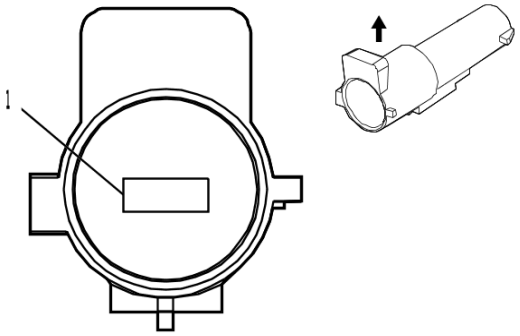


814660

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326120
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 800 Metri-Pack Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326119
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M 800 Metri-Pack Series, Sealed (BK)

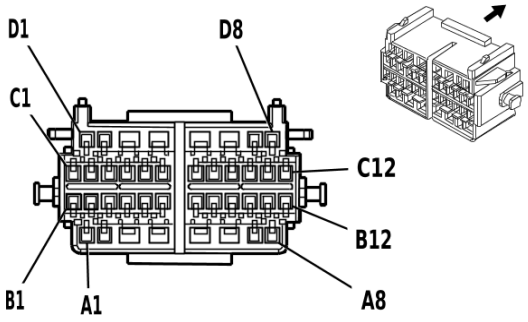
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-44 (YE)	No Tool Required
II	Not Required	J-35616-45 (YE)	No Tool Required

X460 Chassis Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	8	WH	22	I	—	Trailer Ground	1	8	WH	22	II	—

X500 Driver Door Harness to Body Harness



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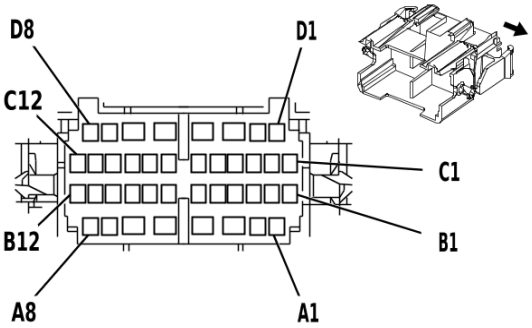


1715230

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15448129
Service Connector: Service by Harness - See Part Catalog
Description: 40-Way F 150, 280 GT Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15416976
Service Connector: 89047197
Description: 40-Way M 150, 280 GT Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-4A (PU)	No Tool Required
III	13575500	J-35616-3 (GY)	J-38125-215A
IV	13575505	J-35616-5 (PU)	J-38125-215A
V	13575510	J-35616-5 (PU)	J-38125-215A

X500 Driver Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.35	TN	126	I	—	Left Front Door Open Switch Signal	A1	0.35	TN	126	III	—
A2 - A4	—	—	—	—	—	Not Occupied	A2 - A4	—	—	—	—	—
A5	3 0.35	BK BK	450 450	II II	AU3 +(DE5/ DEB/ DEE/A31) AU3-A31-DEE-DEB-DE5	Ground 4 Ground 4	A5	3	BK	450	V	—
A6	0.35	BN/ WH	230	II	—	Instrument Panel Lamp Dimming Control	A6	0.35	BN/ WH	230	IV	—
A7	0.8	OG	2267	I	—	Outside Rearview Mirror Heater Control	A7	0.8	OG	2267	III	—

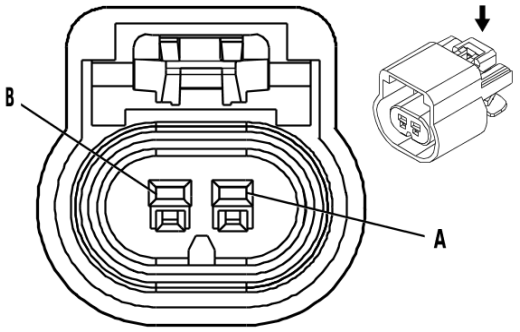
X500 Driver Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A8	0.35	PU/WH	889	I	—	Right Outside Rearview Mirror Motor Down Control	A8	0.5	PU/WH	889	III	—
B1	0.35	OG/BK	781	I	—	Driver Door Lock Switch Unlock Signal	B1	0.35	OG/BK	781	III	—
B2	0.35	PK/BK	780	I	—	Driver Door Lock Switch Lock Signal	B2	0.35	PK/BK	780	III	—
B3	0.35	GY/BK	745	I	—	Left Front Door Ajar Switch Signal	B3	0.35	GY/BK	745	III	—
B4	0.35	BK	450	I	—	Ground 4	B4	0.35	BK	450	III	—
B5 - B6	—	—	—	—	—	Not Occupied	B5 - B6	—	—	—	—	—
B7	0.8	TN	694	I	—	Driver Door Lock Actuator Unlock Control	B7	0.8	TN	694	III	—
B8	0.8	GY	295	I	—	Door Lock Actuator Lock Control	B8	0.8	GY	295	III	—
B9 - B11	—	—	—	—	—	Not Occupied	B9 - B11	—	—	—	—	—
B12	0.8	BU	1857	I	—	Left Front Midrange Speaker [+] Control	B12	0.8	BU	1857	III	—
C1	0.5	PU/WH	6628	I	—	Left Front Side Impact Sensor Low Reference	C1	0.5	PU/WH	6628	III	—
C2	0.5	WH	2132	I	—	Left Front Side Impact Sensor Signal	C2	0.5	WH	2132	III	—
C3 - C6	—	—	—	—	—	Not Occupied	C3 - C6	—	—	—	—	—
C7	0.5	BU/WH	1314	I	—	Left Front Turn Signal Lamp Control	C7	0.5	BU/WH	1314	III	—
C8	0.5	RD/WH	4340	I	—	Secondary Fused Battery Positive Voltage 43	C8	0.5	RD/WH	4340	III	—
C9 - C11	—	—	—	—	—	Not Occupied	C9 - C11	—	—	—	—	—
C12	0.8	BU	1957	I	—	Left Front Midrange Speaker [-] Control	C12	0.8	BU	1957	III	—

X500 Driver Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D1 - D3	—	—	—	—	—	Not Occupied	D1 - D3	—	—	—	—	—
D4	3	TN	167	II	—	Right Front Window Down Switch Main Control Signal	D4	3	TN	167	V	—
D5	3	BU	166	II	—	Right Front Window Up Switch Main Control Signal	D5	3	BU	166	V	—
D6	3	GN	1001	II	—	Retained Accessory Power Control 2	D6	3	GN	1001	V	—
D7	0.35	BN/ WH	1498	I	—	Right Outside Rearview Mirror Motor Up Control	D7	0.5	BN/ WH	1498	III	—
D8	0.35	OG/ WH	881	I	—	Right Outside Rearview Mirror Motor Right Control	D8	0.5	OG/ WH	881	III	—

X501 Air Bag Jumper Harness to Driver Door Harness



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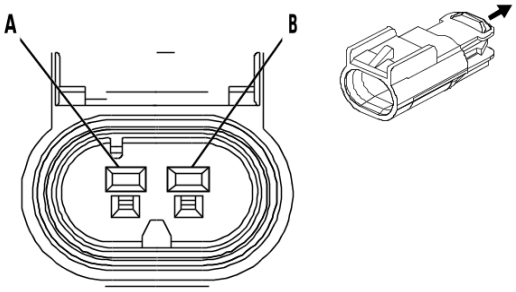


681875

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Driver Door
OEM Connector: 13510099
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 GT Series, Sealed (BK)

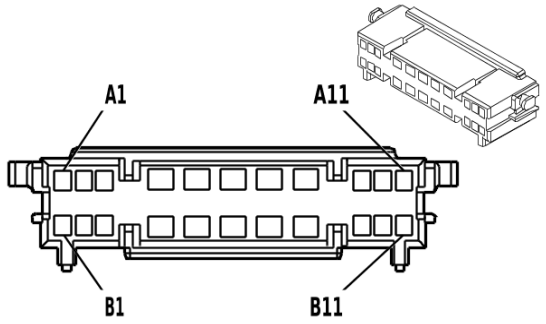
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X501 Air Bag Jumper Harness to Driver Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	PU/WH	6628	I	—	Left Front Side Impact Sensor Low Reference	A	0.5	PU/WH	6628	II	—
B	0.5	WH	2132	I	—	Left Front Side Impact Sensor Signal	B	0.5	WH	2132	II	—

X600 Passenger Door Harness to Body Harness



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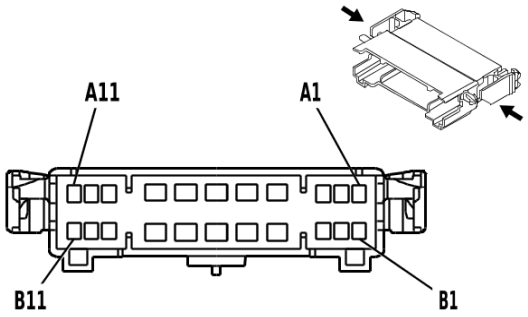


524211

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15326063
Service Connector: Service by Harness - See Part Catalog
Description: 22-Way F 150, 280 GT Series (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 15326064
Service Connector: 15326064
Description: 22-Way M 150, 280 GT Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-4A (PU)	No Tool Required
III	13575500	J-35616-3 (GY)	J-38125-215A
IV	13575505	J-35616-5 (PU)	J-38125-215A
V	13575507	J-35616-5 (PU)	J-38125-215A
VI	13575510	J-35616-5 (PU)	J-38125-215A
VII	13576358	J-35616-5 (PU)	J-38125-215A

X600 Passenger Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.8	OG	1853	I	—	Right Front Midrange Speaker [+] Control	A1	0.8	OG	1853	III	—
A2	0.8	TN	294	I	—	Door Lock Actuator Unlock Control	A2	0.8	TN	294	III	—
A3	0.8	OG	2267	I	—	Outside Rearview Mirror Heater Control	A3	0.8	OG	2267	III	—
A4	3	BU	166	II	—	Right Front Window Up Switch Main Control Signal	A4	3	BU	166	VI	—

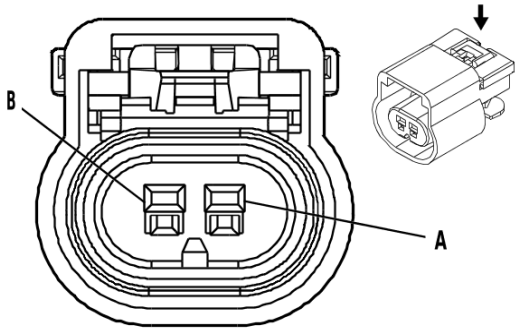
X600 Passenger Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A5	0.8 0.35	BK BK	1850 1850	II II	AU3 +(DE5/ DEB/ DEE/A31) D5/ DEB/DEE	Ground 18 Ground 18	A5	0.8	BK	1850	V	—
A6	0.35	BN/ WH	1498	II	—	Right Outside Rearview Mirror Motor Up Control	A6	0.5	BN/ WH	1498	VII	—
A7	0.35	OG/ WH	881	II	—	Right Outside Rearview Mirror Motor Right Control	A7	0.5	OG/ WH	881	VII	—
A8	0.35	TN/ WH	746	II	—	Right Front Door Ajar Switch Signal	A8	0.35	TN/ WH	746	IV	—
A9	0.35	BK	1850	I	—	Ground 18	A9	0.35	BK	1850	III	—
A10	0.5	GN	2134	I	—	Right Front Side Impact Sensor Signal	A10	0.5	GN	2134	III	—
A11	0.35	BU	244	I	—	Passenger Door Lock Switch Lock Control	A11	0.35	BU	244	III	—
B1	0.8	GN	1953	I	—	Right Front Midrange Speaker [-] Control	B1	0.8	GN	1953	III	—
B2	0.8	GY	295	I	—	Door Lock Actuator Lock Control	B2	0.8	GY	295	III	—
B3	0.5	BU/ WH	1315	I	—	Right Front Turn Signal Lamp Control	B3	0.5	BU/ WH	1315	III	—
B4	3	TN	167	II	—	Right Front Window Down Switch Main Control Signal	B4	3	TN	167	VI	—
B5	3	GN	1001	II	—	Retained Accessory Power Control 2	B5	3	GN	1001	VI	—
B6	0.35	BN/ WH	230	II	—	Instrument Panel Lamp Dimming Control	B6	0.35	BN/ WH	230	IV	—
B7	0.35	PU/ WH	889	II	—	Right Outside Rearview Mirror Motor Down Control	B7	0.5	PU/ WH	889	VII	—
B8	0.35	GN	1177	II	—	Right Front Door Open Switch Signal	B8	0.35	GN	1177	IV	—

X600 Passenger Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B9	—	—	—	—	—	Not Occupied	B9	—	—	—	—	—
B10	0.5	WH/ BK	6629	I	—	Right Front Side Impact Sensor Low Reference	B10	0.5	WH/ BK	6629	III	—
B11	0.35	BU	245	I	—	Passenger Door Lock Switch Unlock Control	B11	0.35	BU	245	III	—

X601 Side Impact Sensor - Right Front Jumper Harness to Passenger Door Harness



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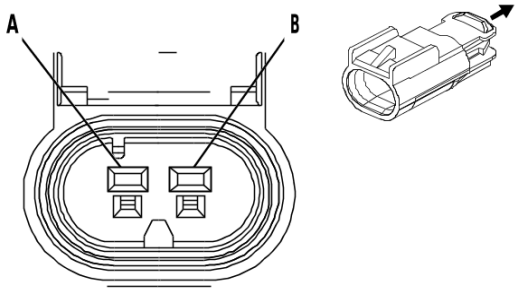


681875

Connector Part Information

Harness Type: Side Impact Sensor - Right Front Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13510099
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 GT Series, Sealed (BK)

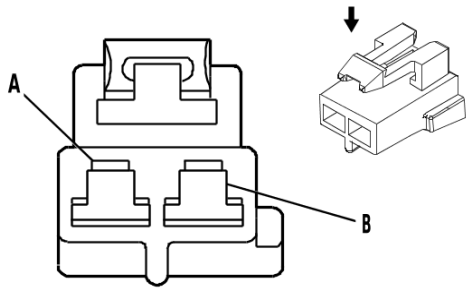
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X601 Side Impact Sensor - Right Front Jumper Harness to Passenger Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B	0.5	GN	2134	I	—	Right Front Side Impact Sensor Signal	B	0.5	GN	2134	II	—
A	0.5	WH/ BK	6629	I	—	Right Front Side Impact Sensor Low Reference	A	0.5	WH/ BK	6629	II	—

X901 Rear Window Defogger Harness to Left Rear Cargo Door Harness



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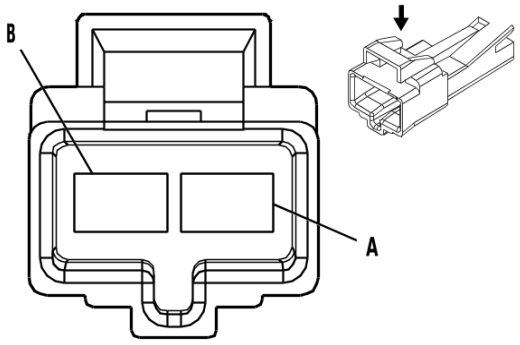


38284

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12064749
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Left Rear Cargo Door
OEM Connector: 12064750
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 480 Metri-Pack Series (BK)

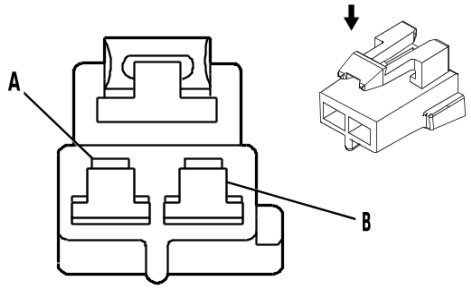
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-40 (BU)	No Tool Required
II	Not Required	J-35616-40 (BU)	No Tool Required
III	Not Required	J-35616-41 (BU)	No Tool Required

X901 Rear Window Defogger Harness to Left Rear Cargo Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	PU	293	I	—	Rear Defogger Grid Control	A	5	PU	293	III	—
B	3	BK	850	I	—	Ground 8	B	3	BK	850	II	—

X902 Rear Window Defogger Harness to Right Rear Cargo Door Harness



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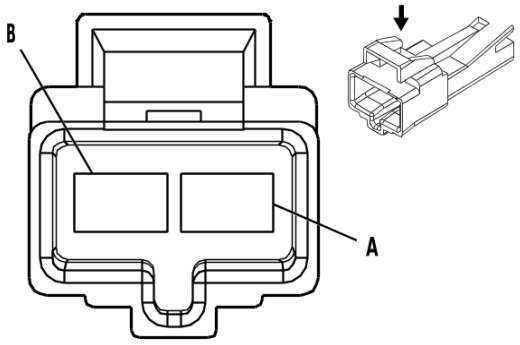


38284

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12064749
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 12064750
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 480 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-40 (BU)	No Tool Required
II	Not Required	J-35616-40 (BU)	No Tool Required
III	Not Required	J-35616-41 (BU)	No Tool Required

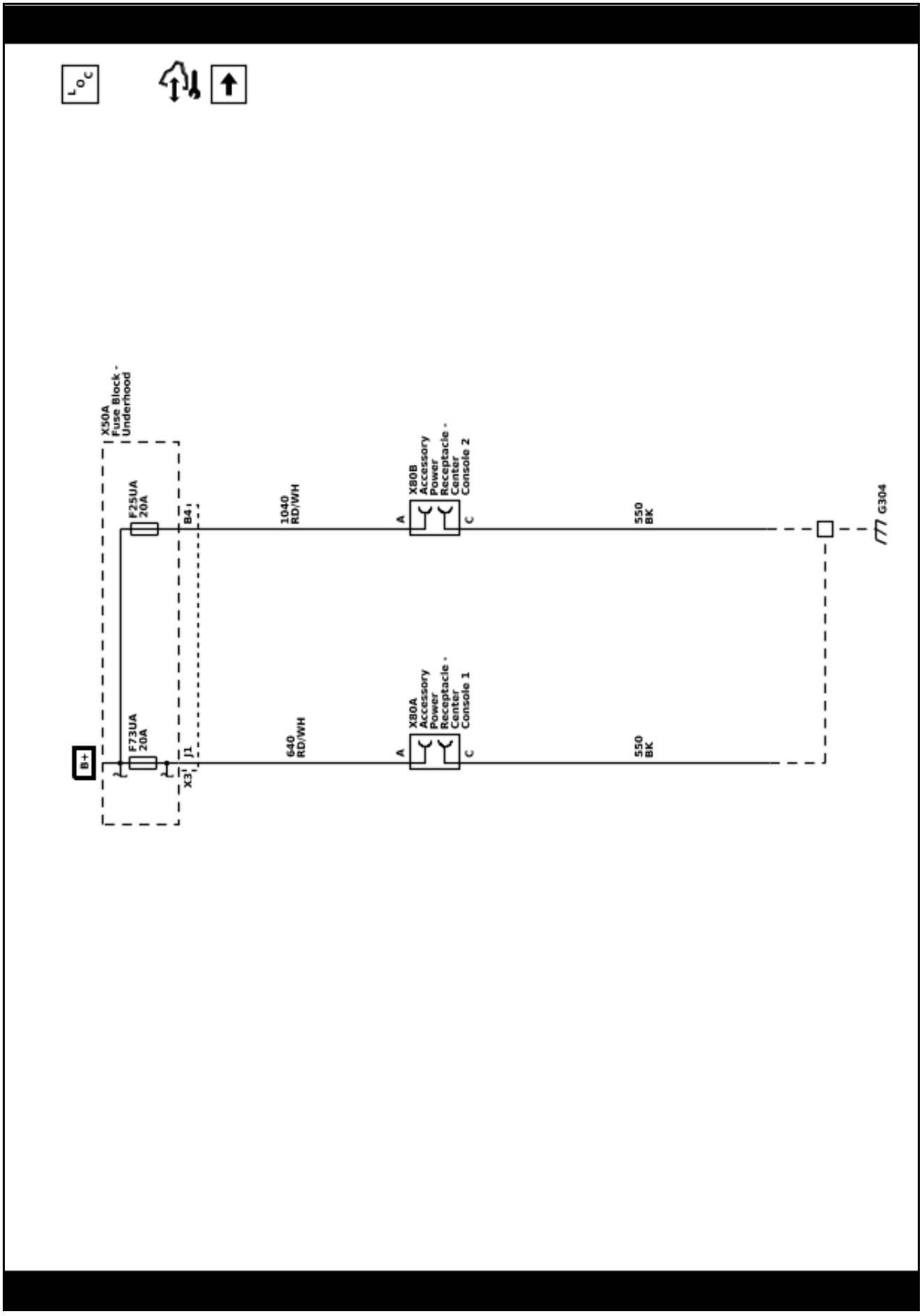
X902 Rear Window Defogger Harness to Right Rear Cargo Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	PU	293	I	—	Rear Defogger Grid Control	A	5	PU	293	III	—
B	3	BK	850	I	—	Ground 8	B	3	BK	1050	II	—

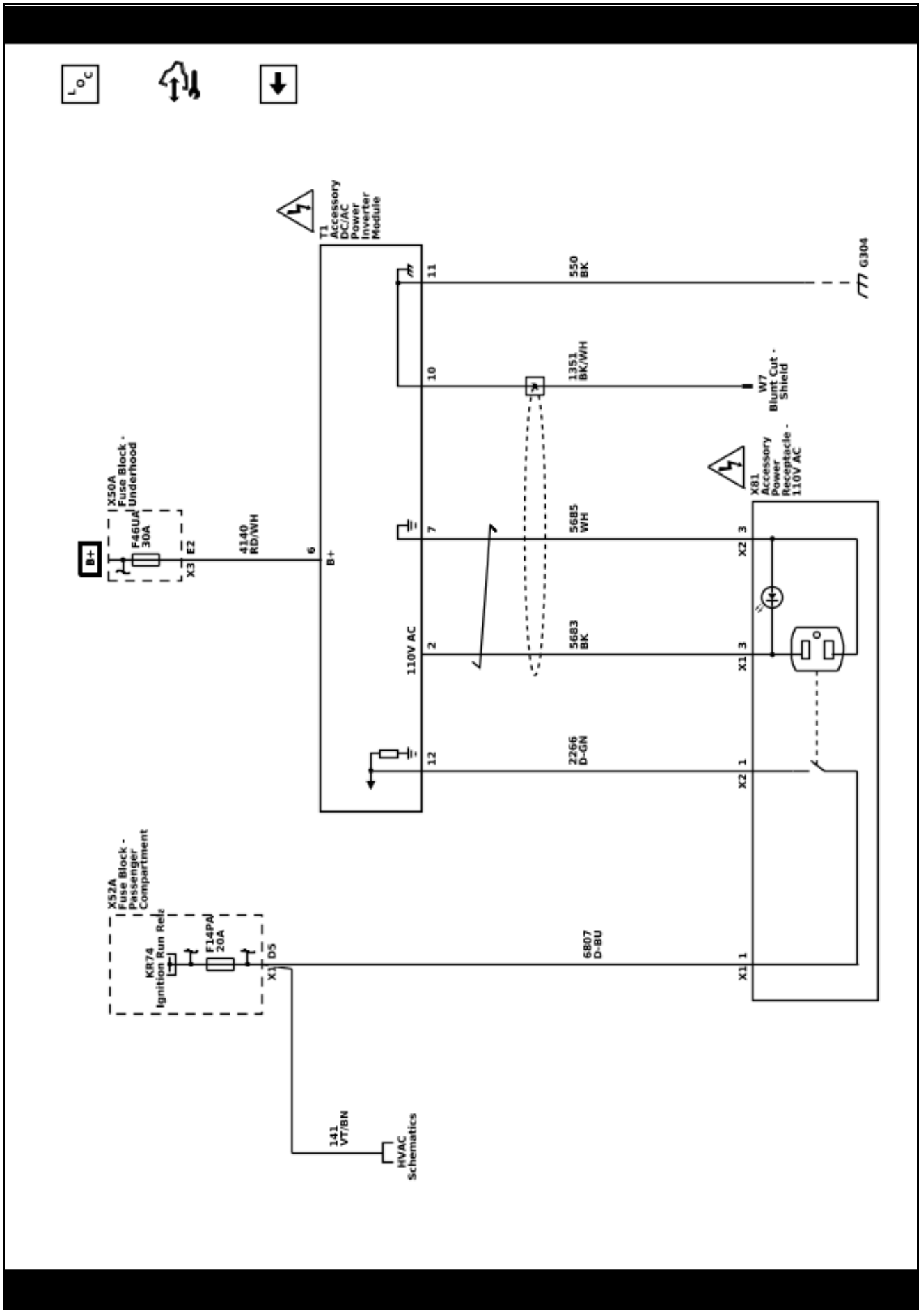
Power Outlets

Schematic and Routing Diagrams

Cigar Lighter/Power Outlet Schematics (Cigar Lighter/Power Outlet)



Cigar Lighter/Power Outlet Schematics (110V AC Outlet (KI4))



Description and Operation

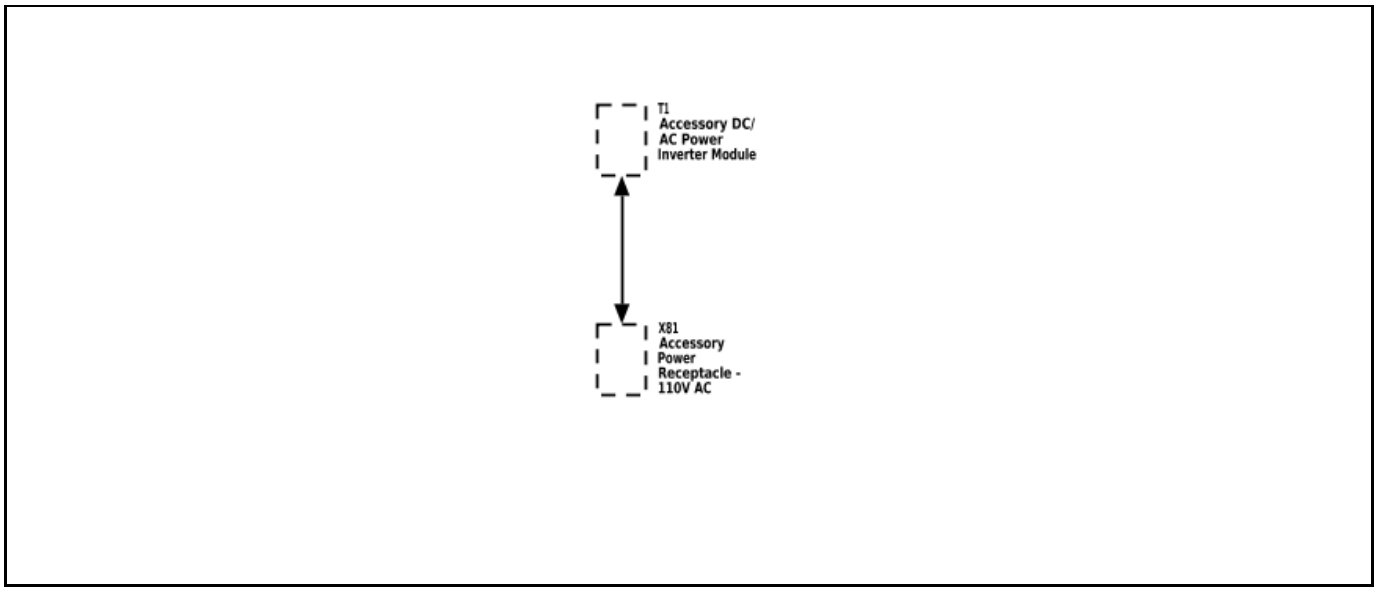
Power Outlets Description and Operation

12 Volt Power Outlet Receptacle Description and Operation

The 12 V accessory power receptacles are supplied B+ all the time.

110 Volt Power Outlet Receptacle System Description

Power Outlets Block Diagram



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The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 110 V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 110 V at 60 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 110 V AC provides the usual connection for AC powered devices.

110 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 110 V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 110 V AC, the normally open switch in the accessory power receptacle – 110 V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 110 V AC switch, the inverter module begins to supply 110 V AC to the accessory power receptacle – 110 V AC after a 1.5 second delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

110 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 110 V circuit for a short to vehicle chassis ground. If a 110 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

110 Volt Power Outlet Receptacle Overload Shutdown

The accessory DC/AC power inverter module will turn OFF if the current in the 110 V circuit is greater than 3.8 A for 1 second, or 2.5 A for 10 seconds. The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

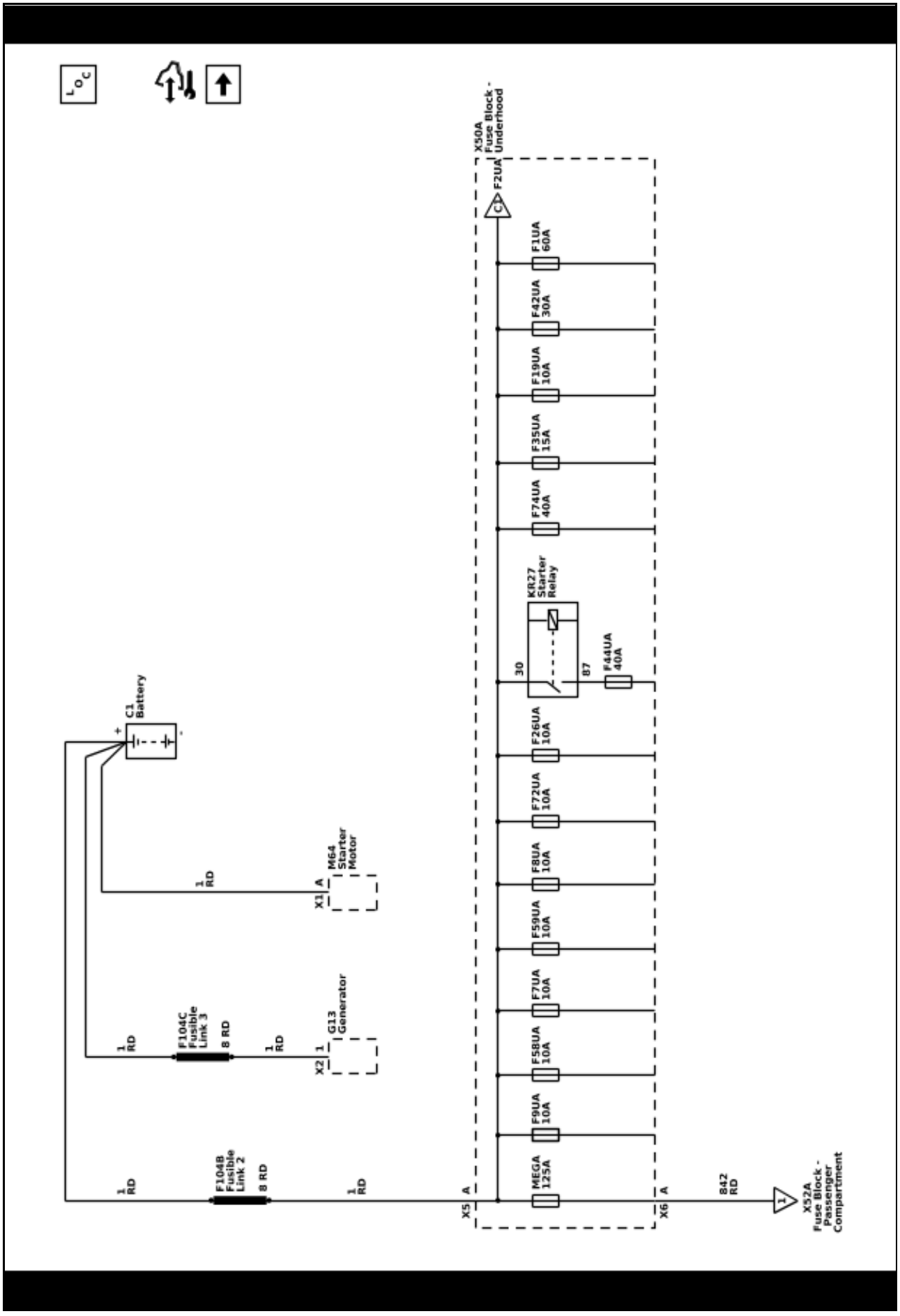
110 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the outlet, and then plugged into the outlet.

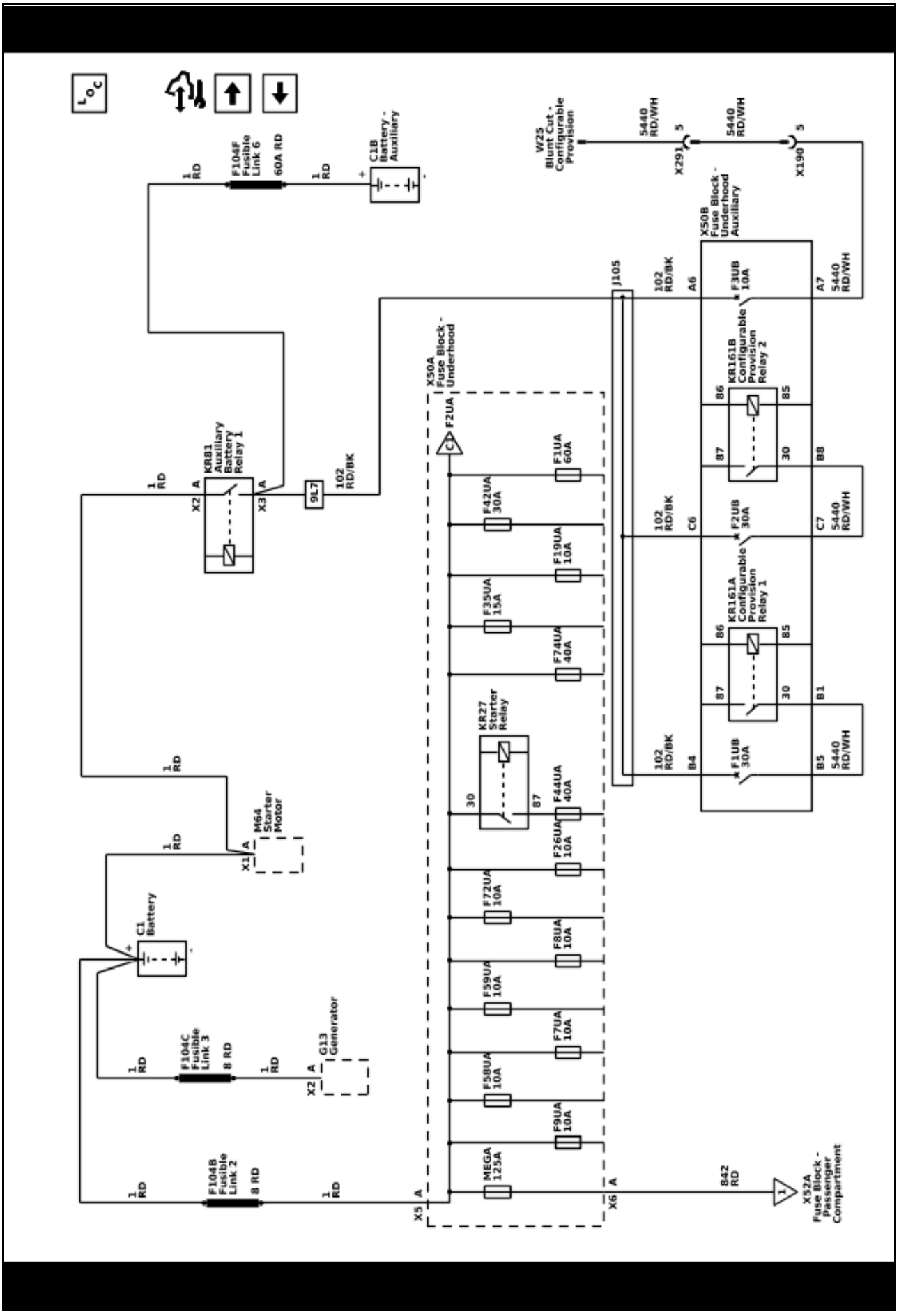
Wiring Systems and Power Management

Schematic and Routing Diagrams

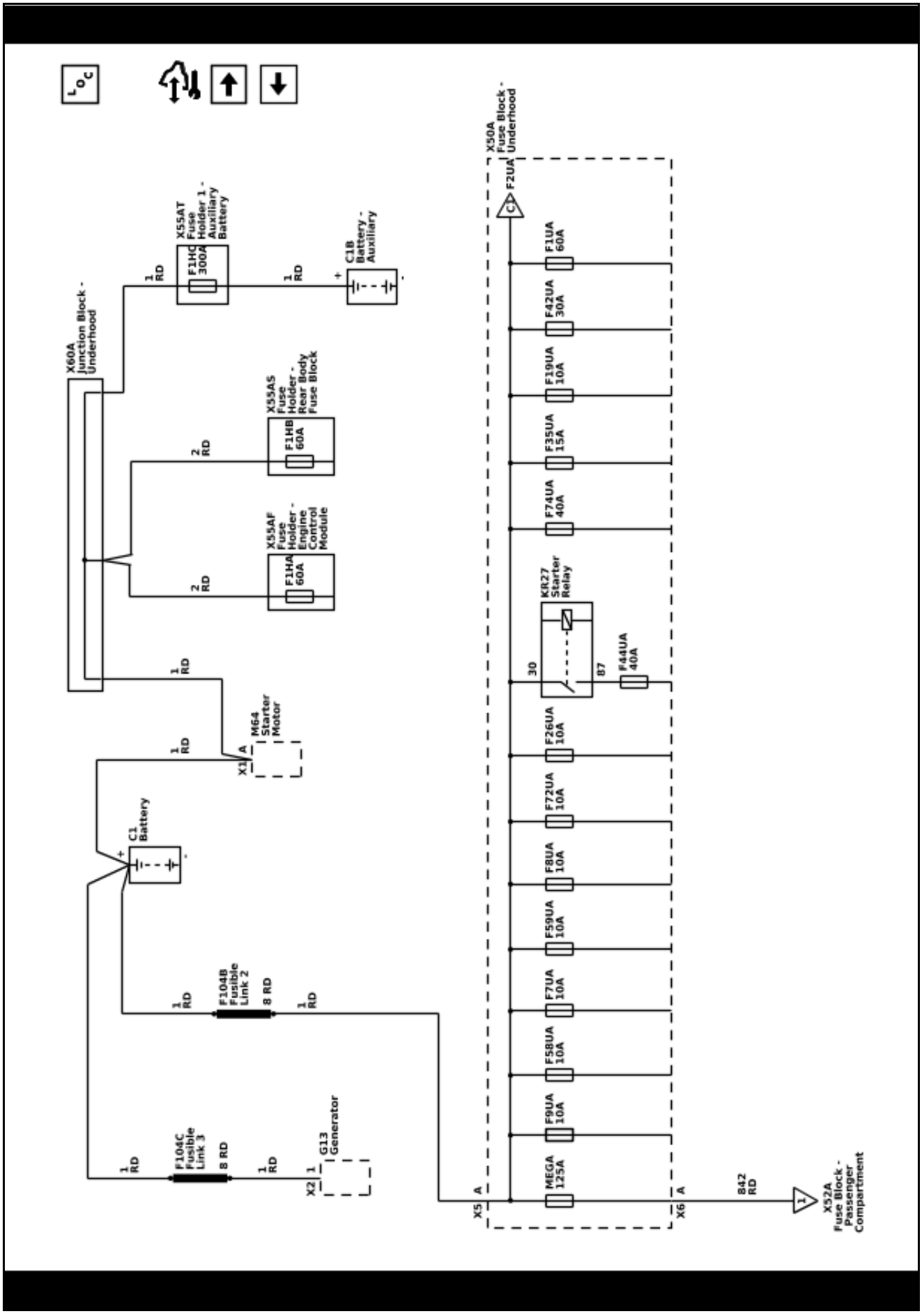
Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block (Gas with One Battery, 1 of 3))



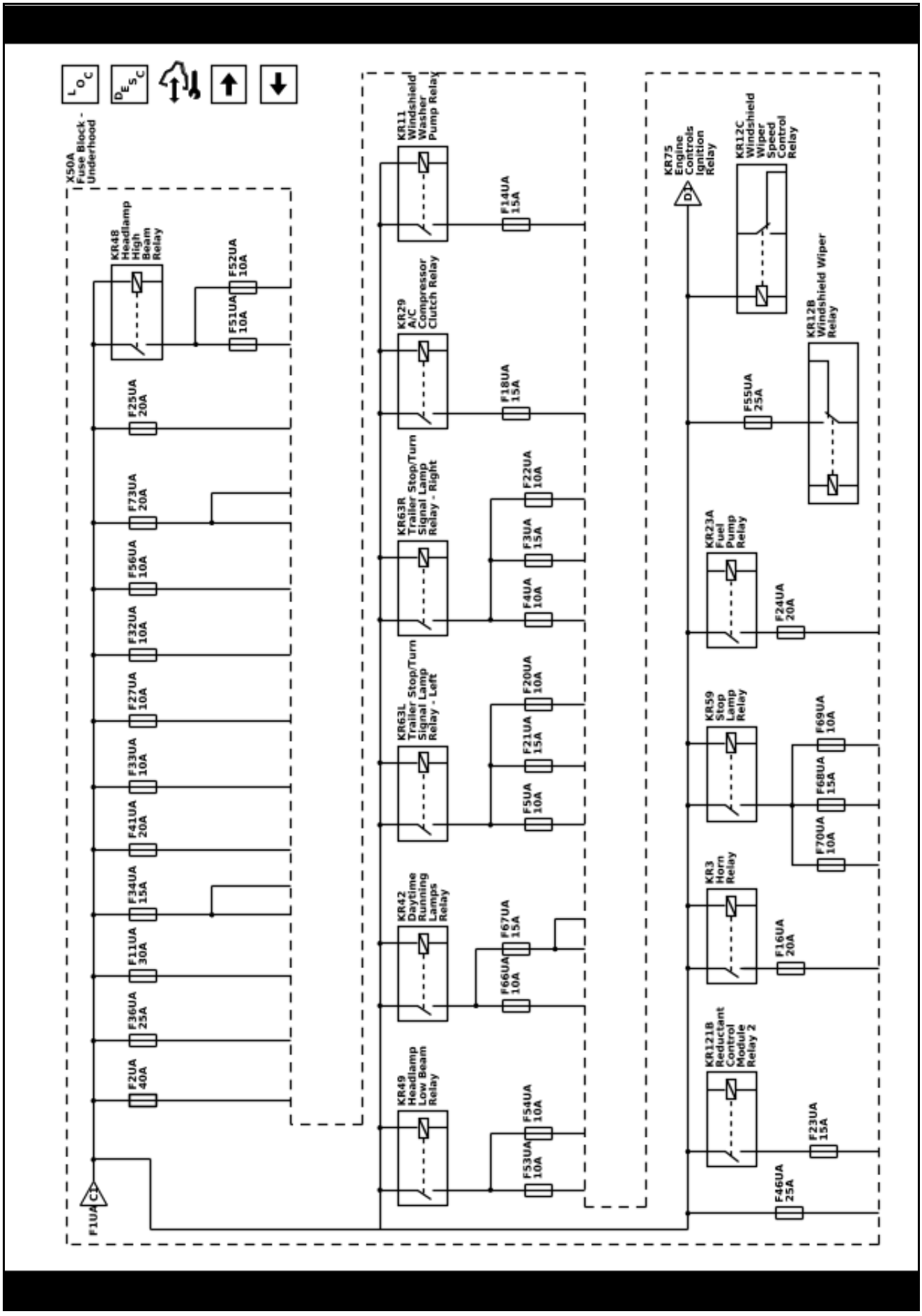
Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block (Gas with Two Batteries, 1 of 3) and Fuse Block - Underhood Auxiliary (9L7))



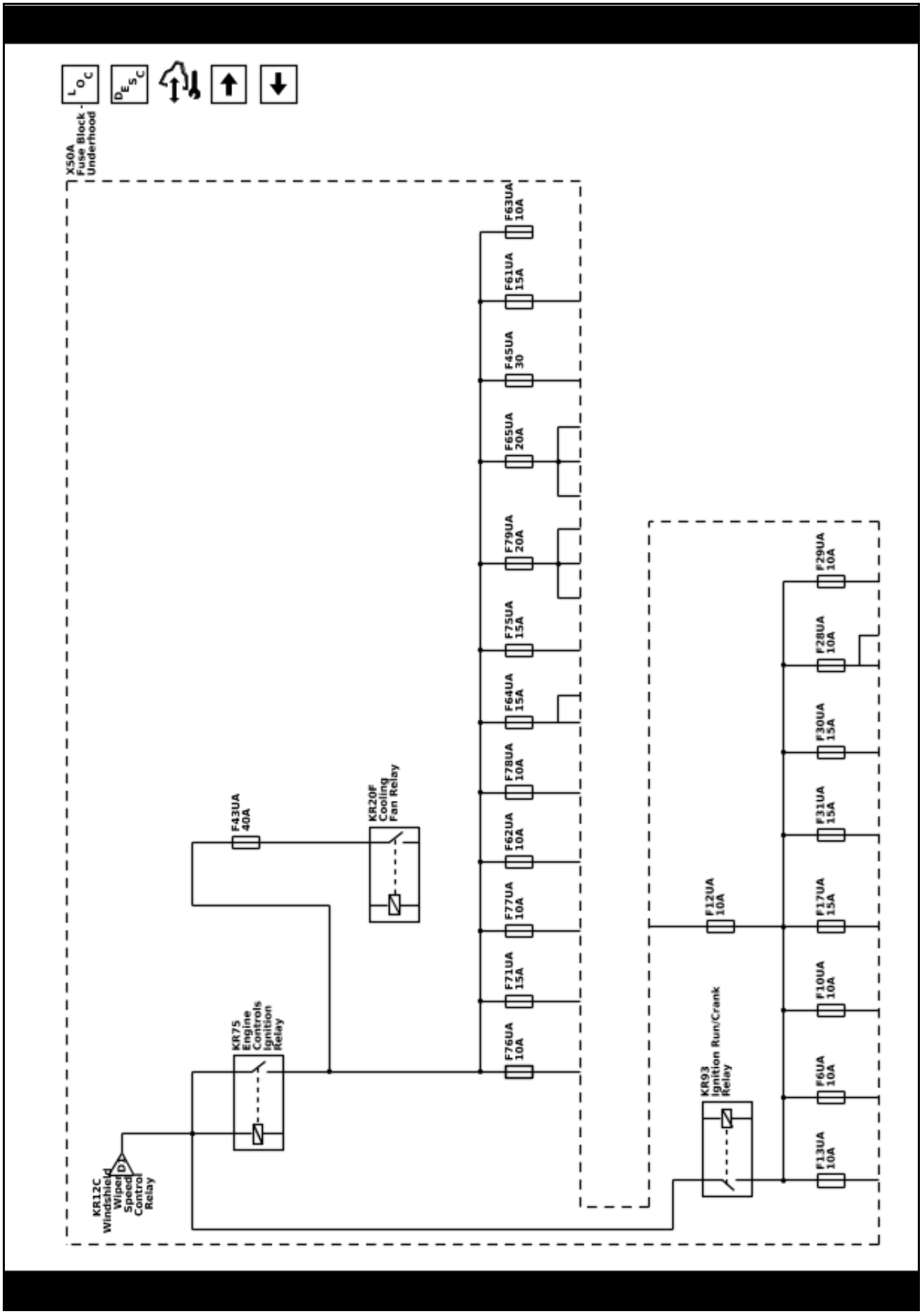
Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block (Diesel, 1 of 3))



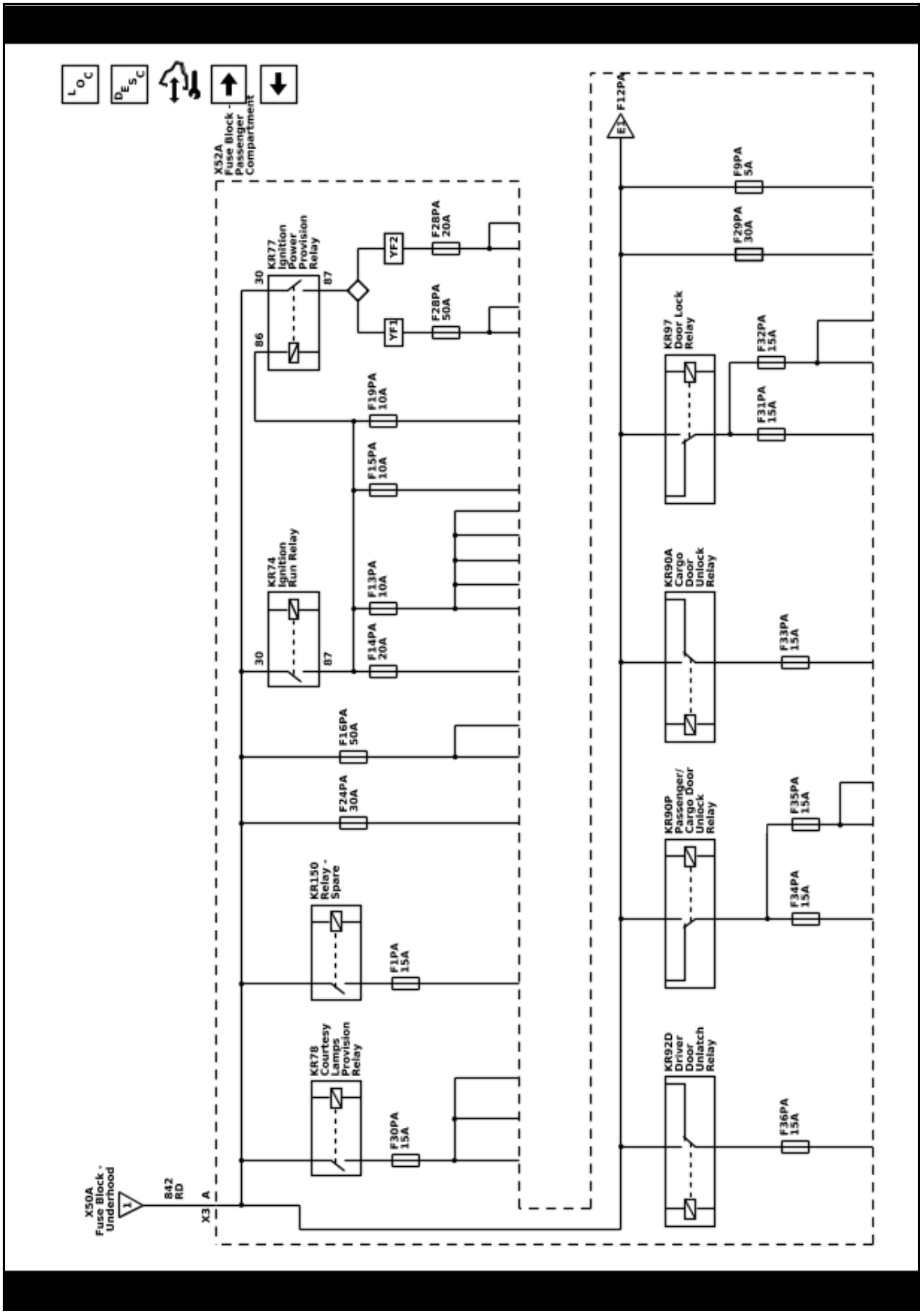
Power Distribution Schematics (B+ Bus - Underhood Fuse Block (2 of 3))



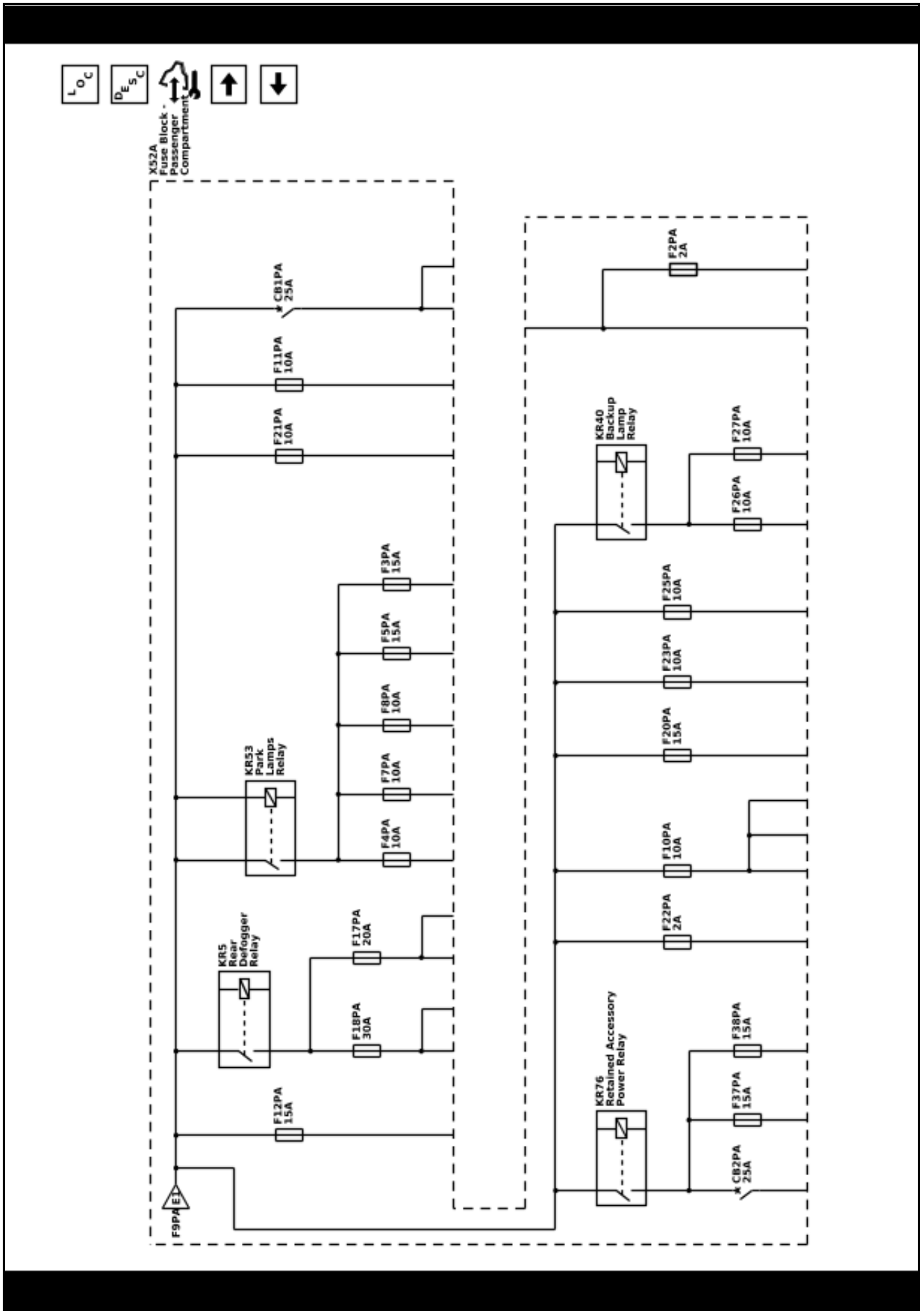
Power Distribution Schematics (B+ Bus - Underhood Fuse Block (3 of 3))



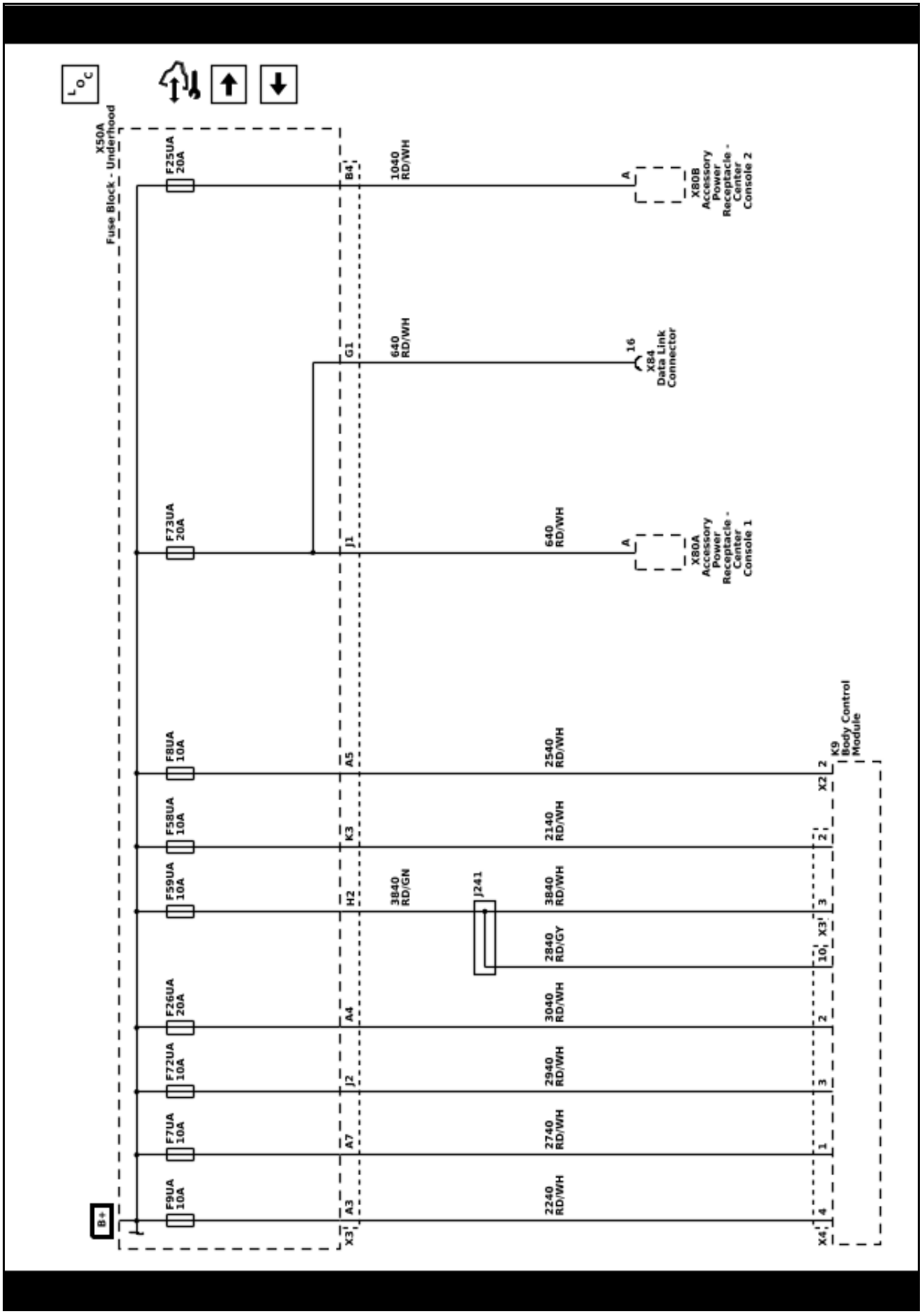
Power Distribution Schematics (B+ Bus - Passenger Compartment Fuse Block (1 of 2))



Power Distribution Schematics (B+ Bus - Passenger Compartment Fuse Block (2 of 2))



Power Distribution Schematics (Fuses F7UA, F8UA, F9UA, F25UA, F26A, F58UA, F59UA, F72UA, and F73UA)



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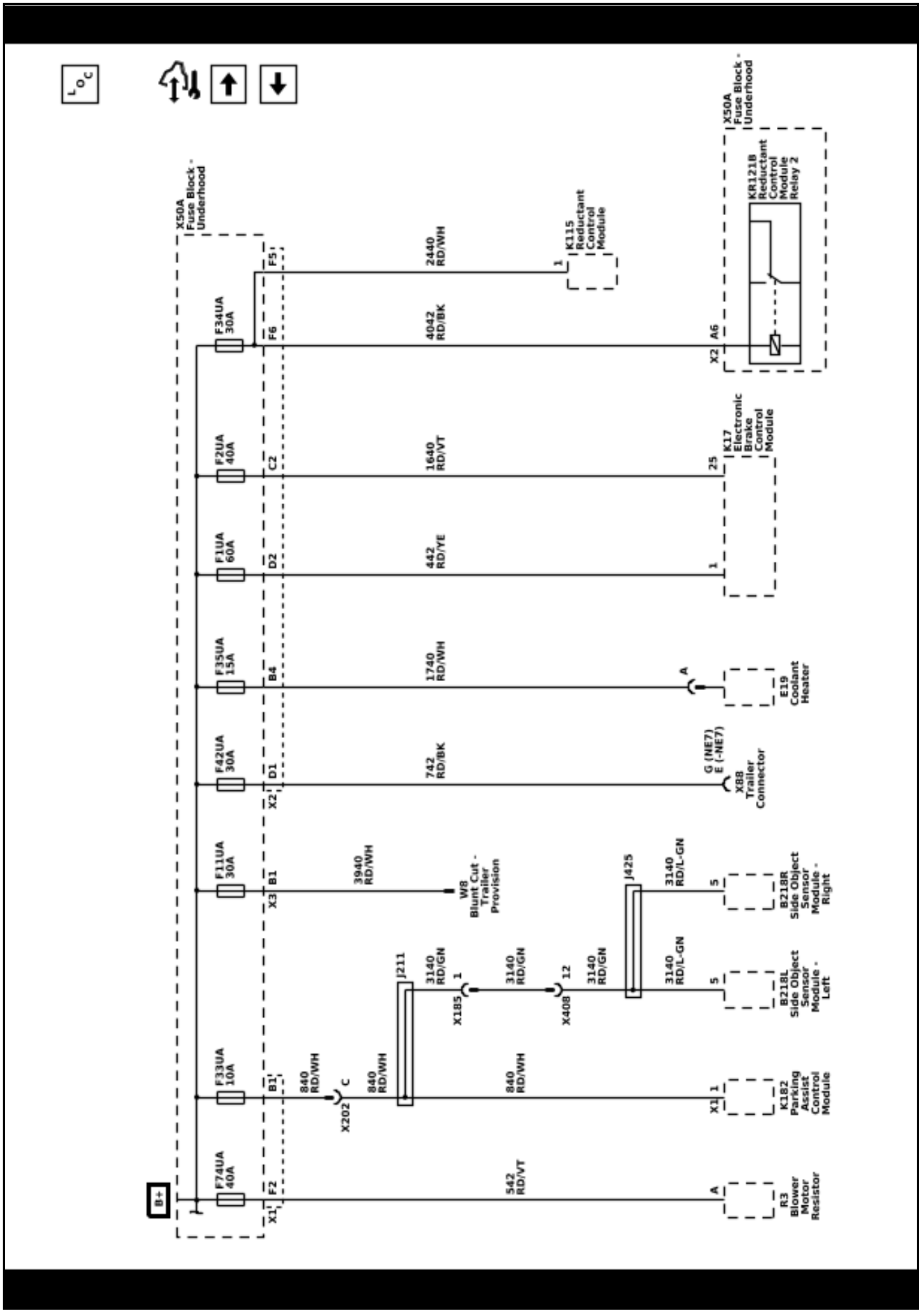
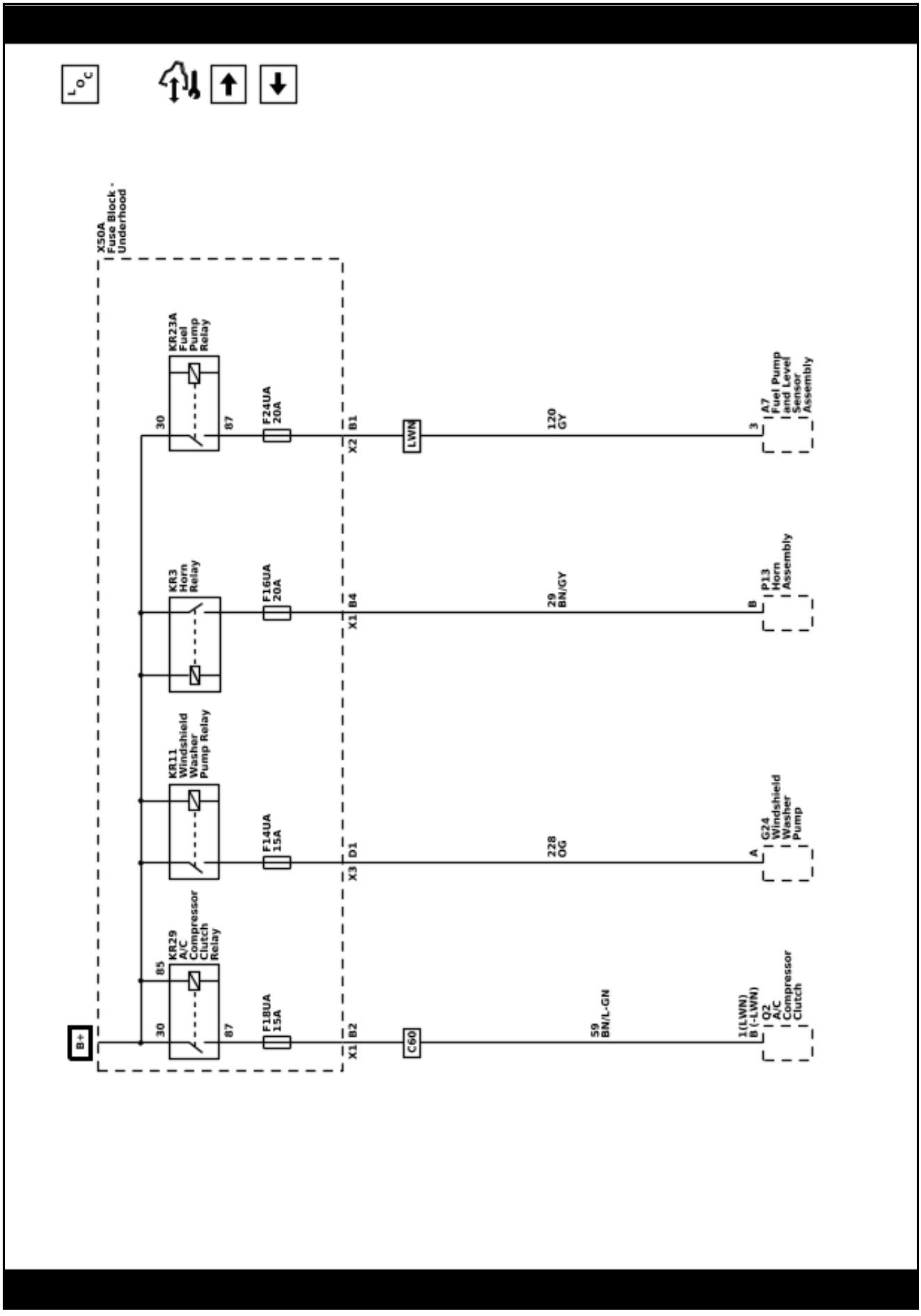
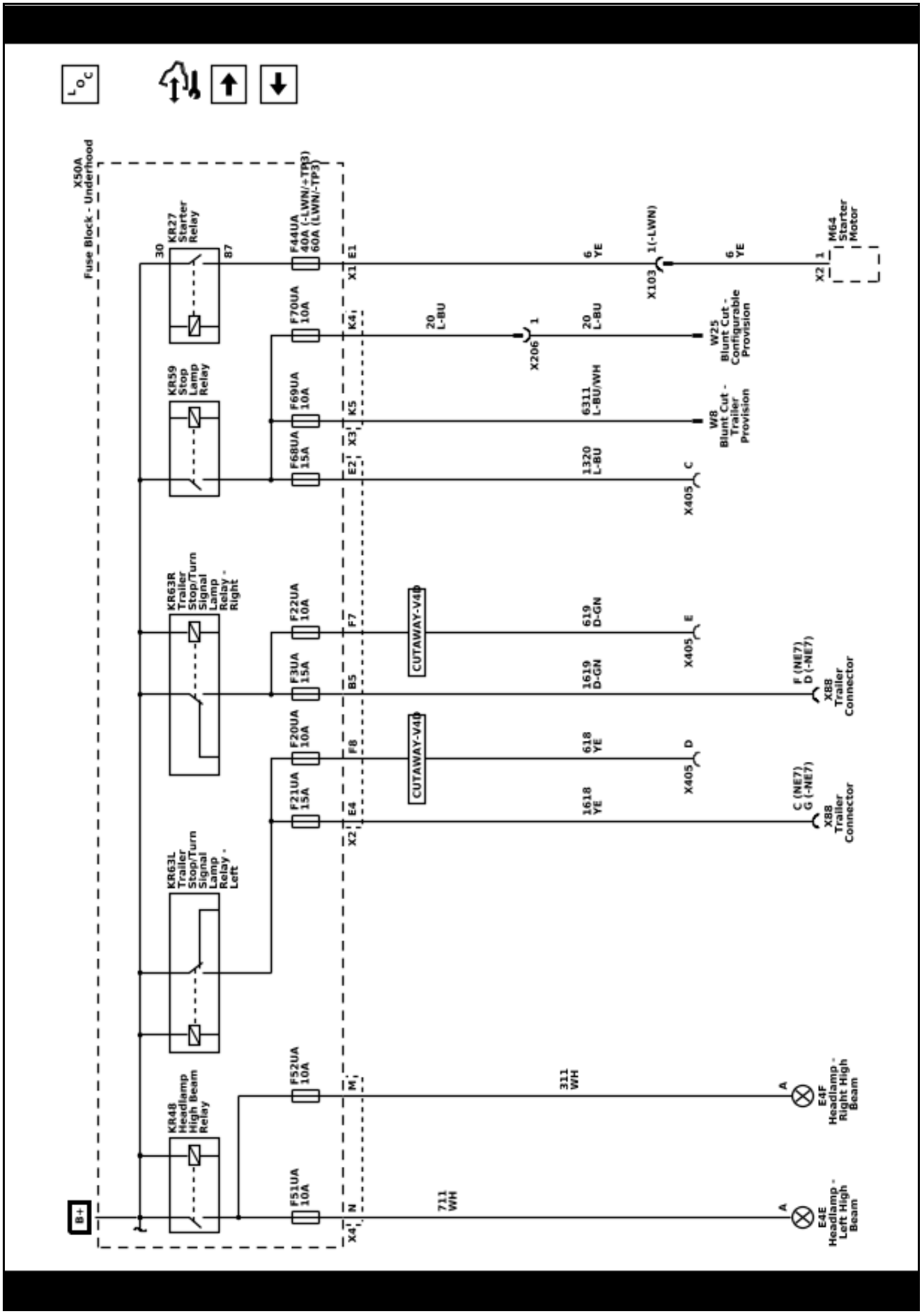
Power Distribution Schematics (Fuses F1UA, F2UA, F11UA, F33UA, F34UA, F35UA, F42UA, and F74UA)



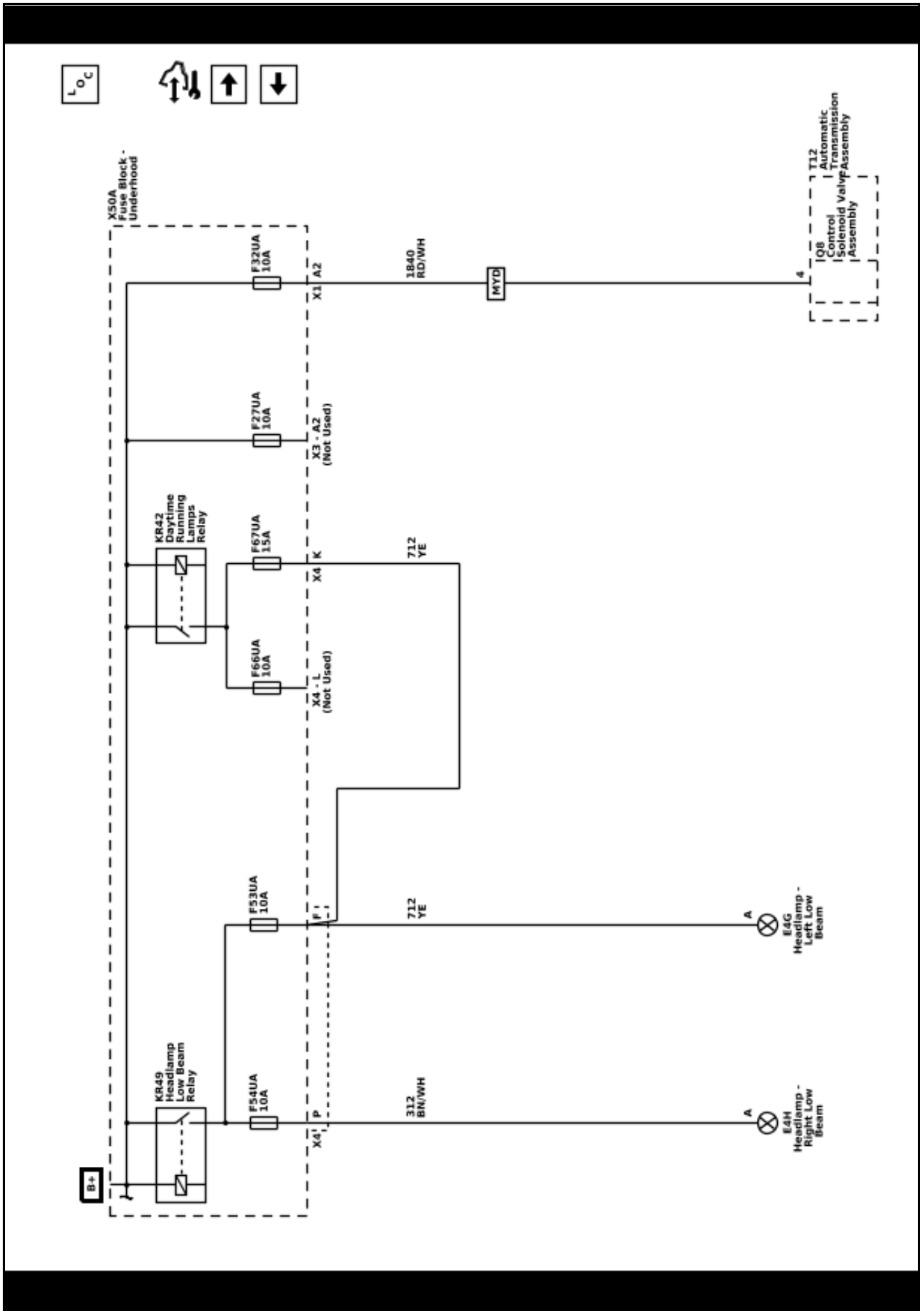
Power Distribution Schematics (Fuses F14UA, F16UA, F18UA, and F24UA)



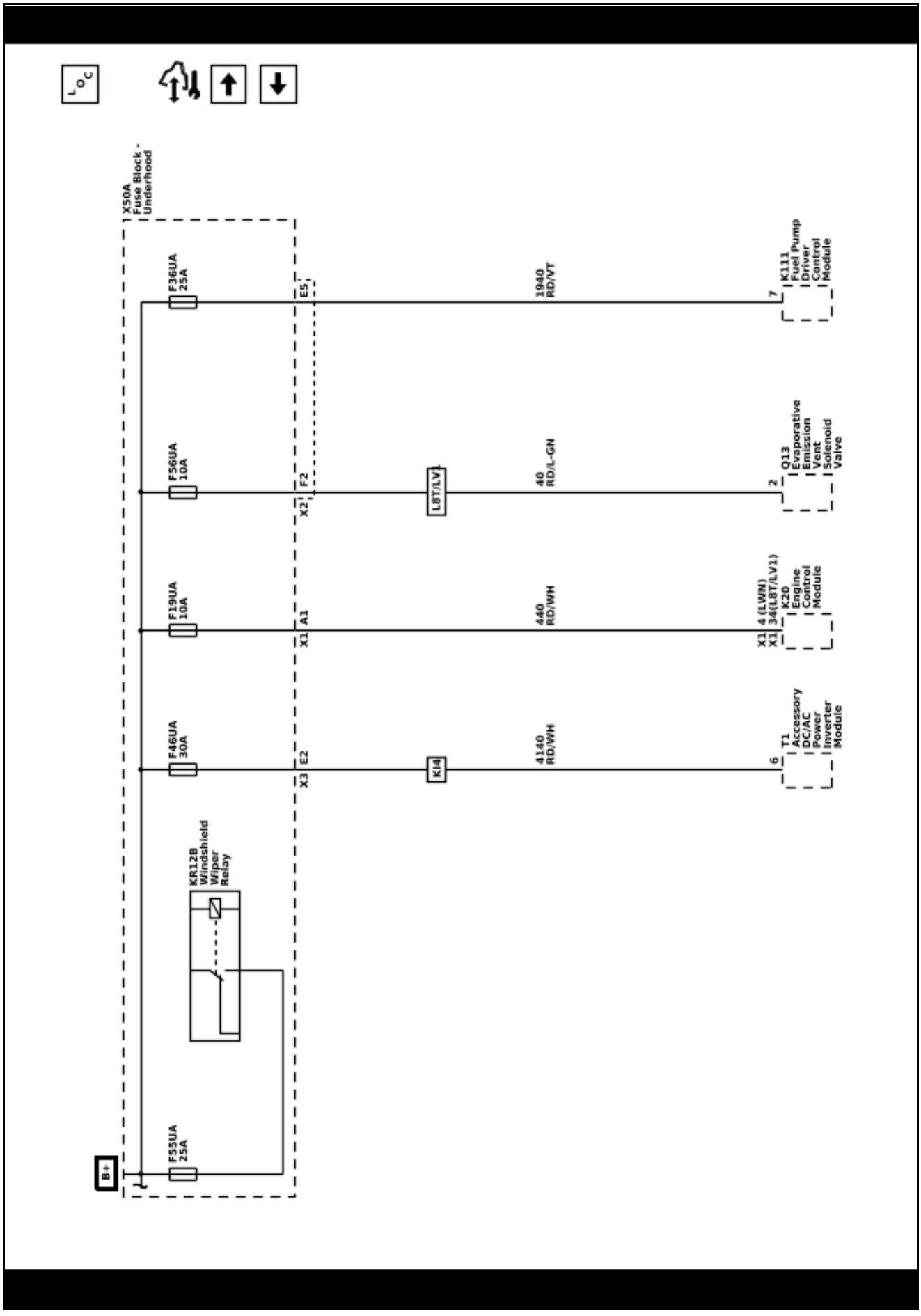
Power Distribution Schematics (Fuses F3UA, F21UA, F44UA, F51UA, F52UA, F68UA, F69UA, and F70UA)



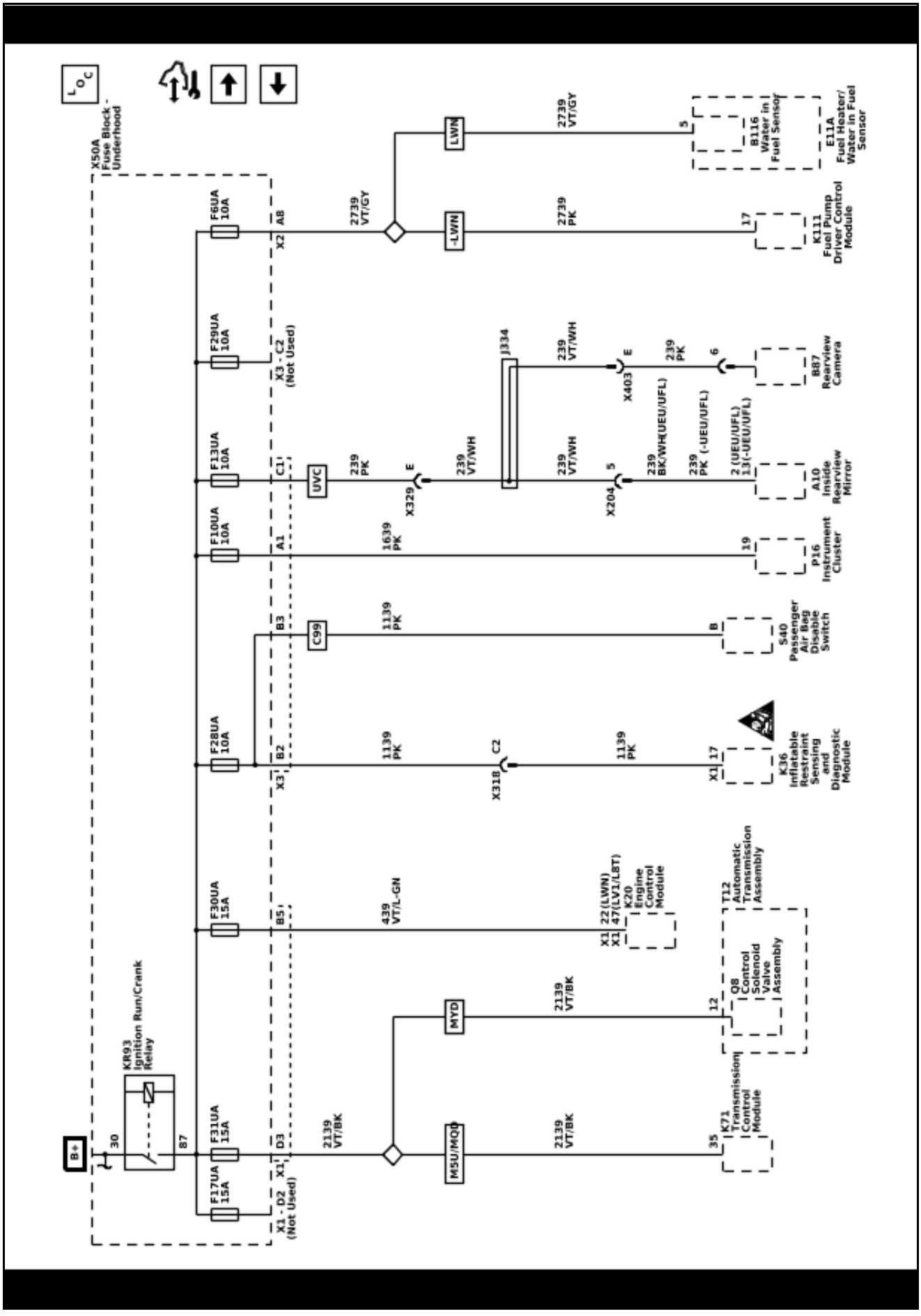
Power Distribution Schematics (Fuses F27UA, F32UA, F53UA, F54UA, F66UA, and F67UA)



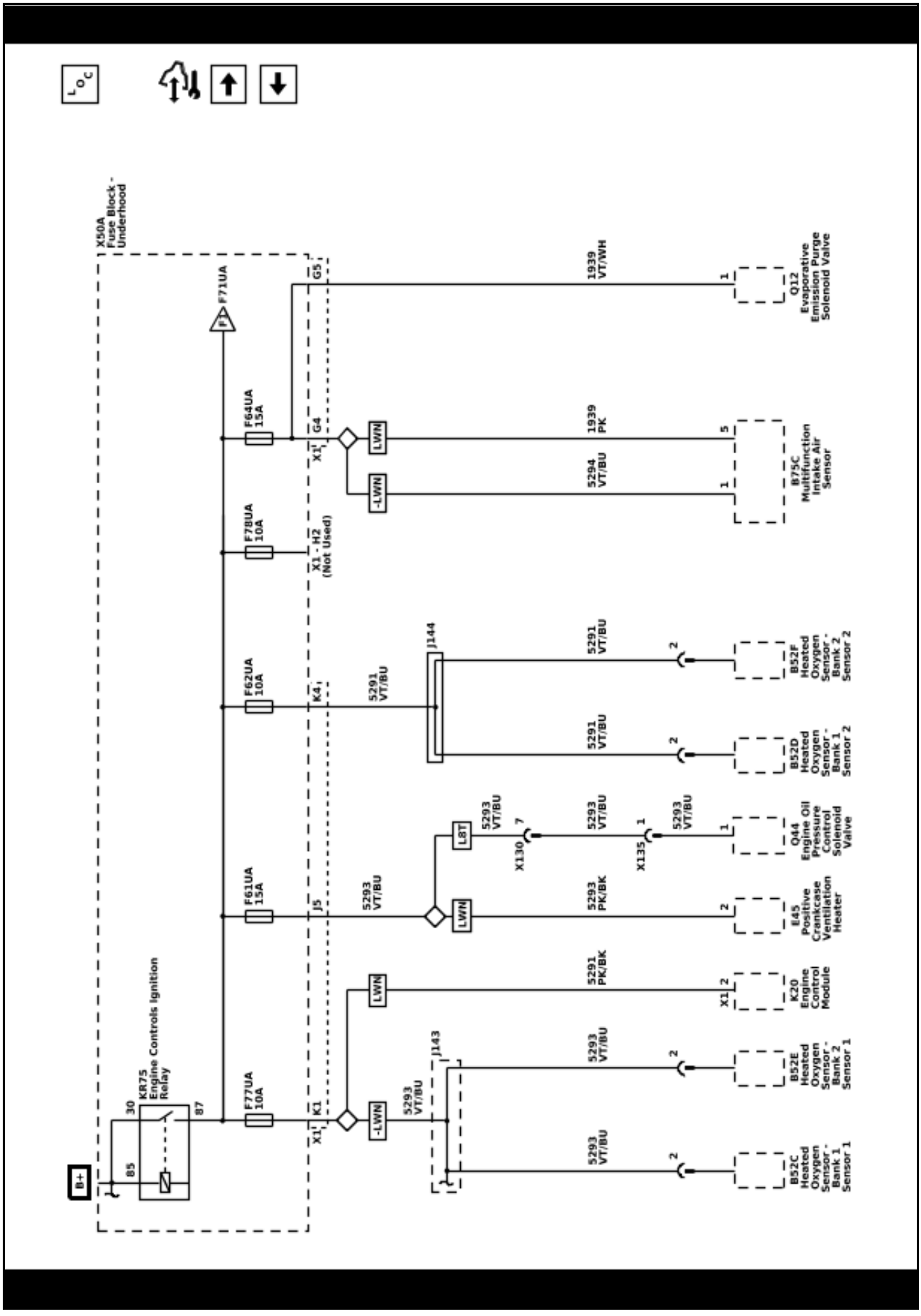
Power Distribution Schematics (Fuses F19UA, F36UA, F46UA, and F56UA)



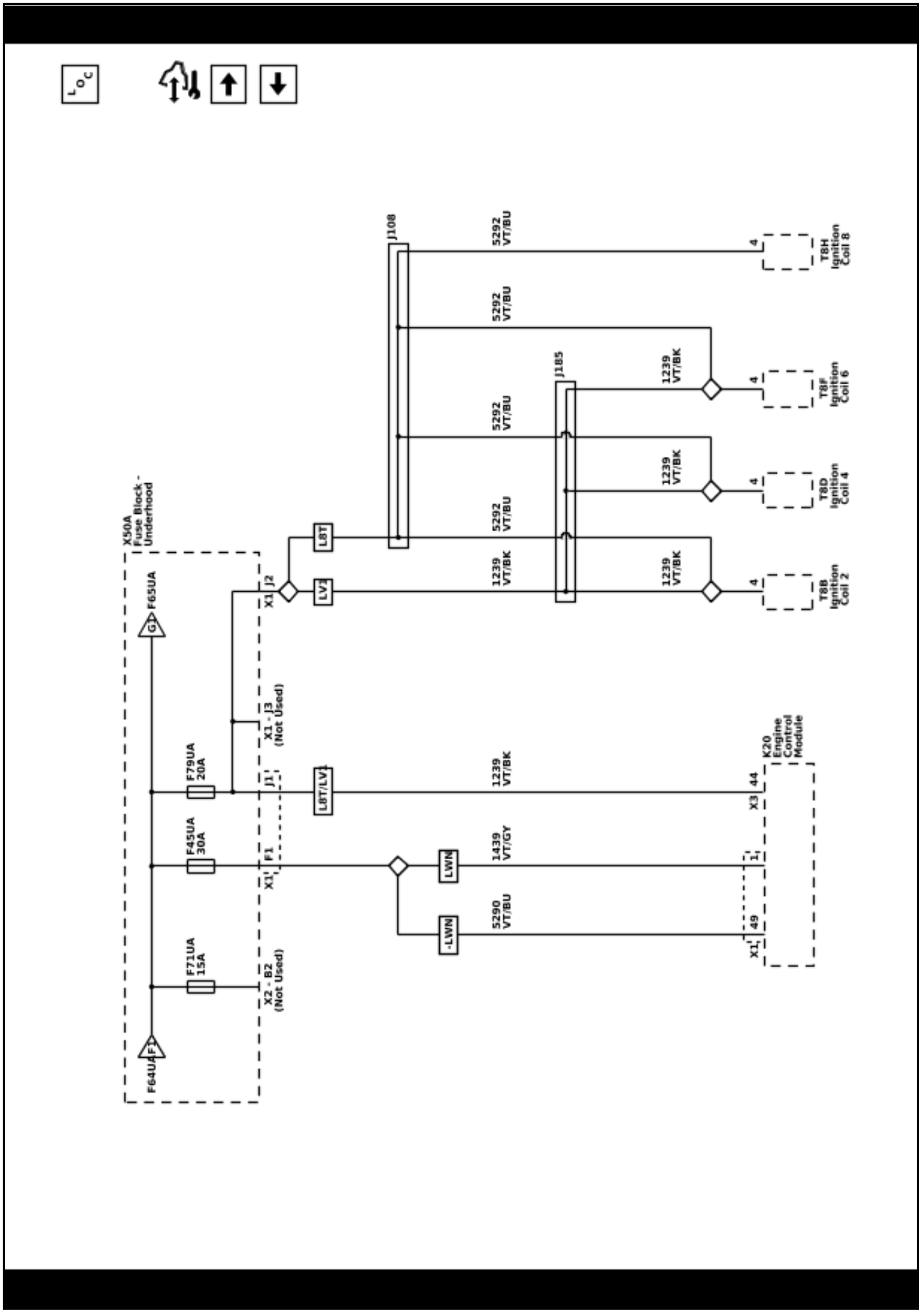
Power Distribution Schematics (Fuses F6UA, F10UA, F17UA, F28UA, F29UA, F30UA, and F31UA)



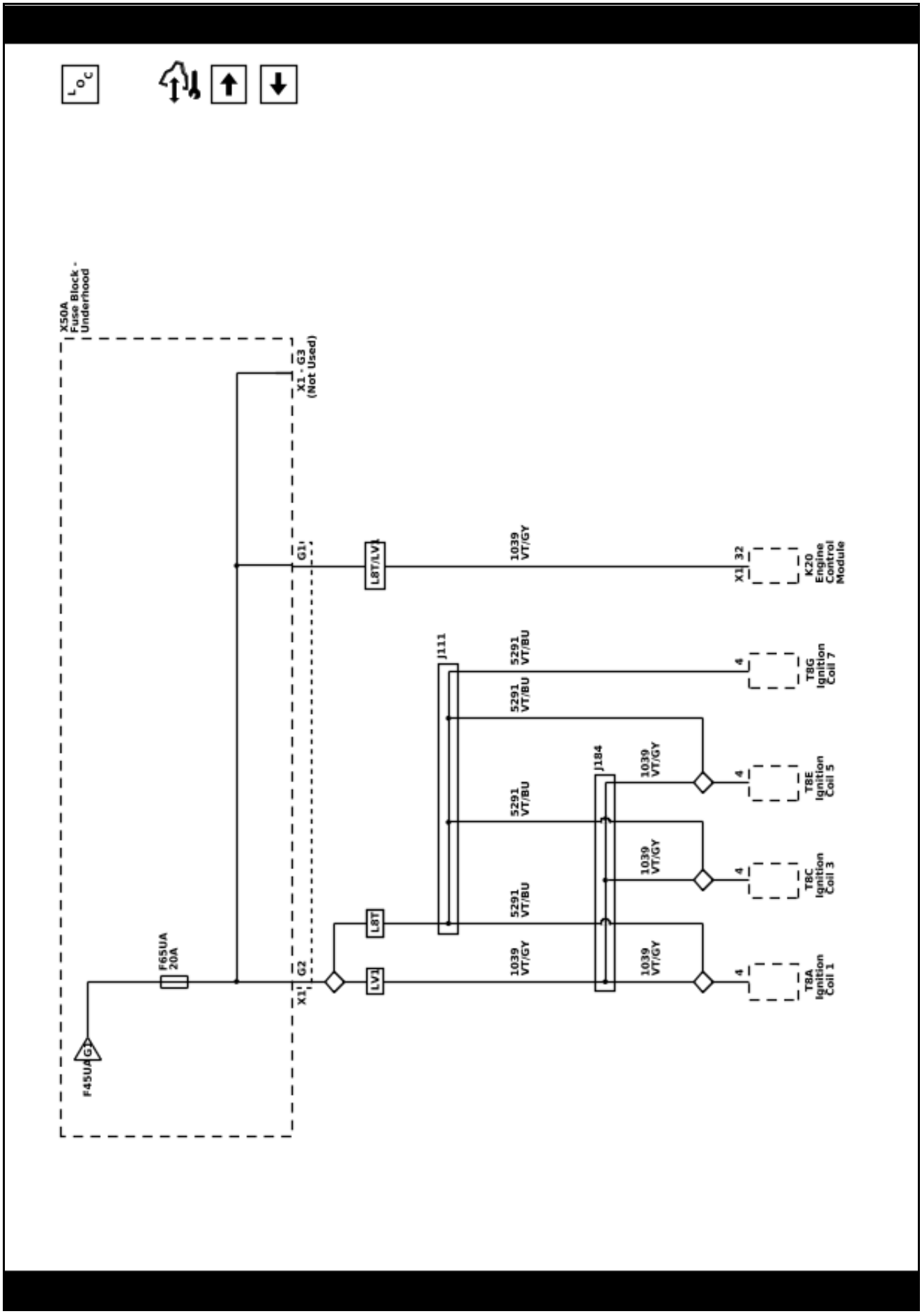
Power Distribution Schematics (Fuses F61UA, F62UA, F64UA, F76UA, F77UA, and F78UA)



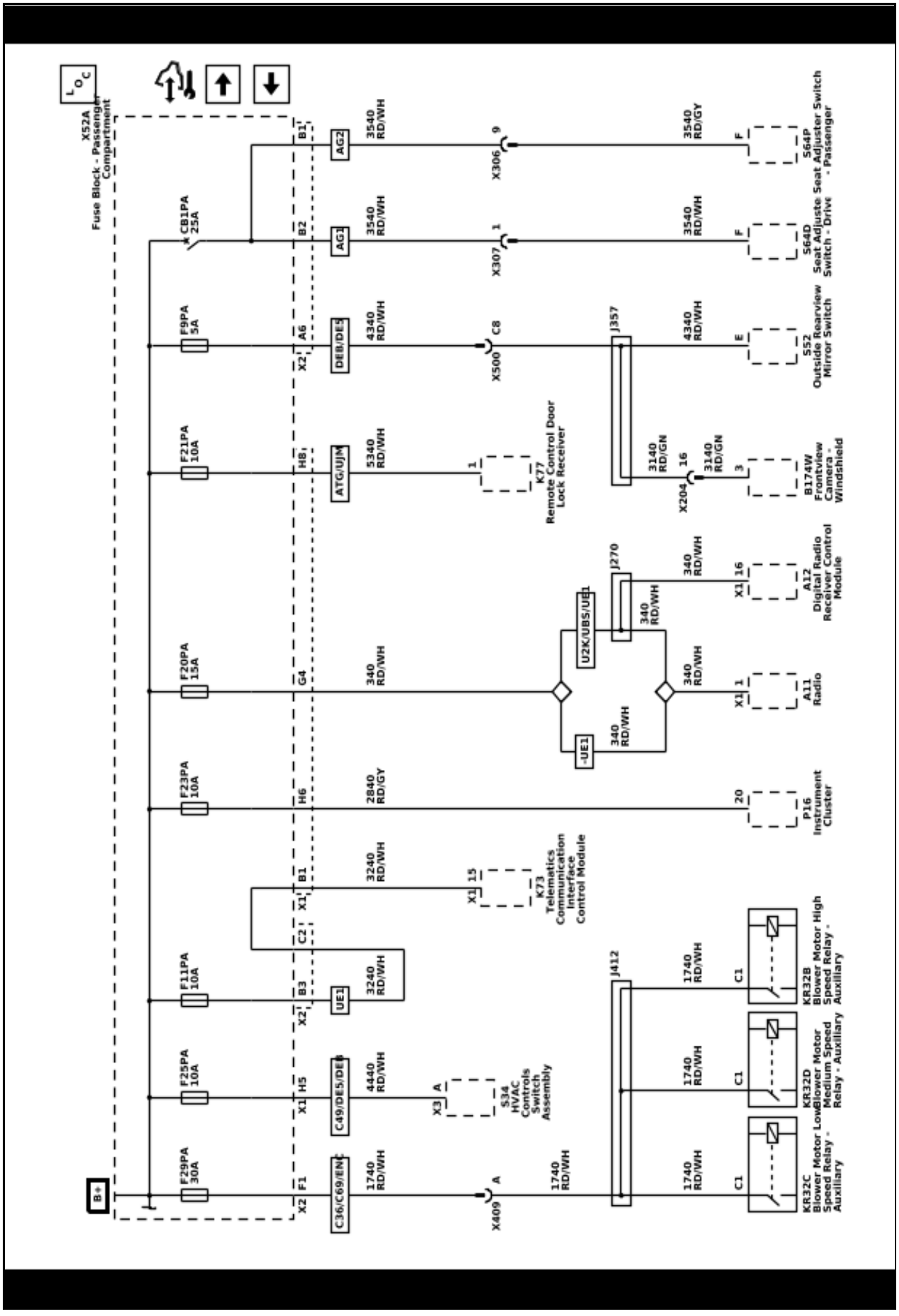
Power Distribution Schematics (Fuses F45UA, F71UA, and F79UA)



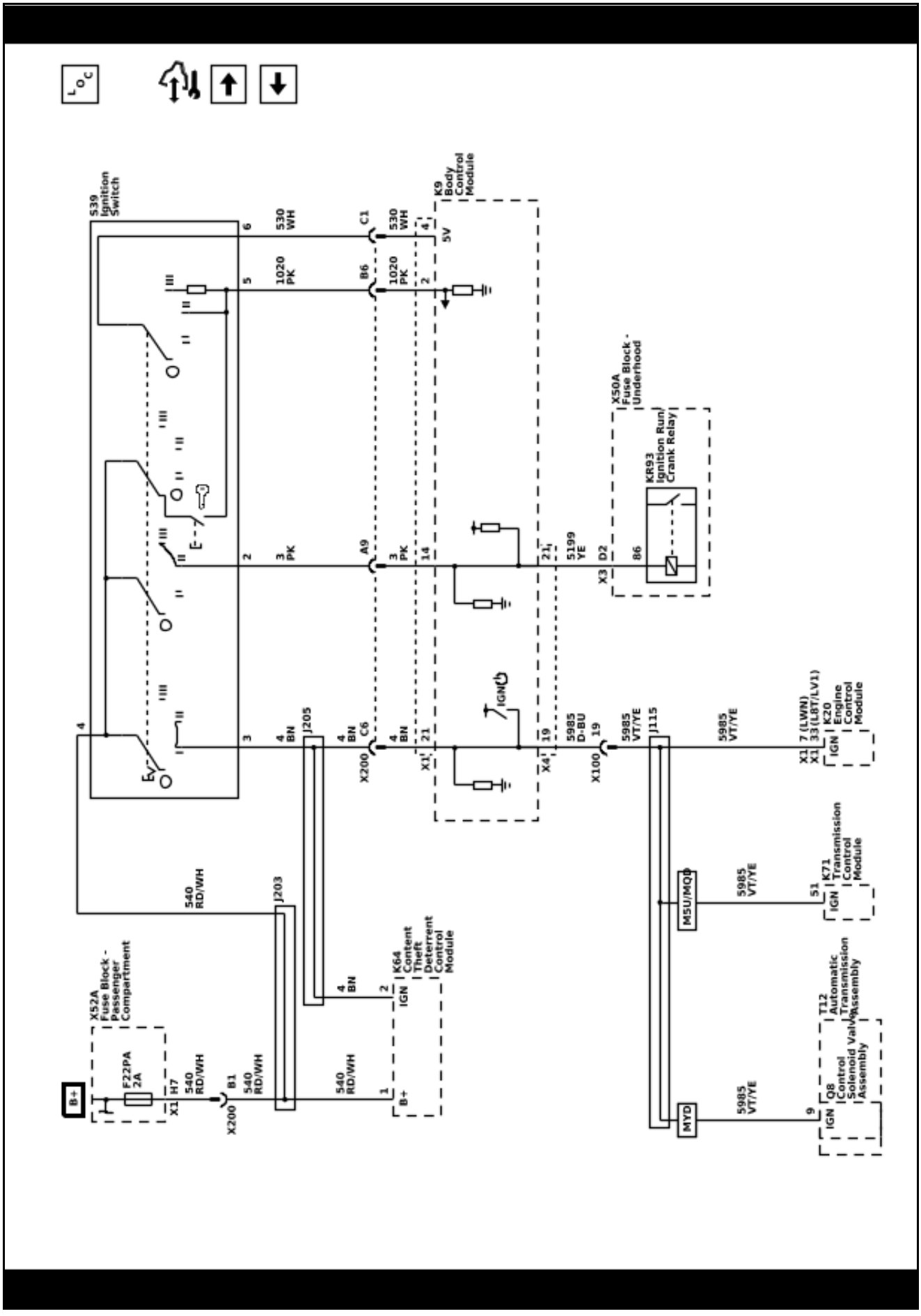
Power Distribution Schematics (Fuse F65UA)



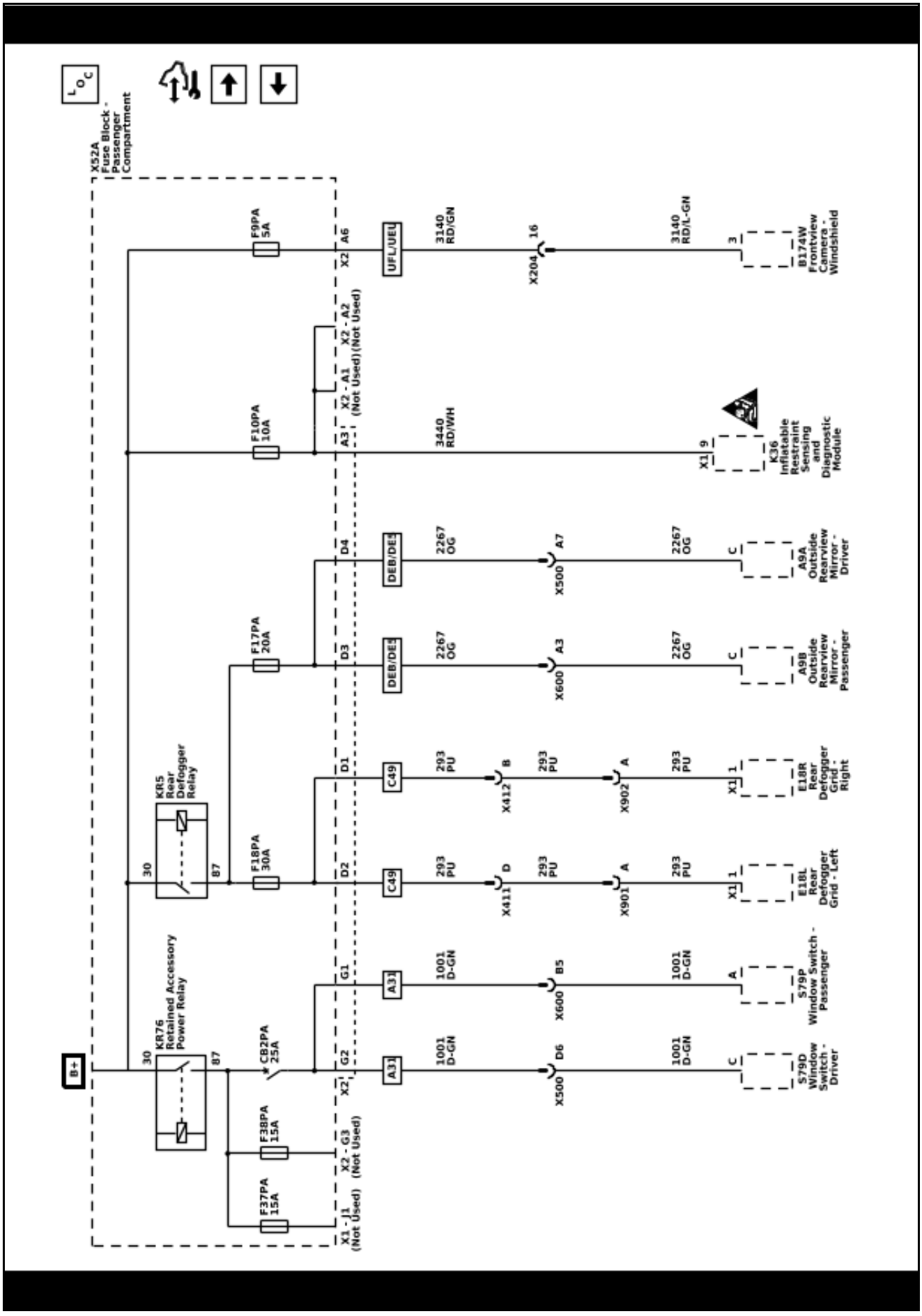
Power Distribution Schematics (Fuses F9PA, F11PA, F20PA, F21PA, F23PA, F25PA, F29PA, and Circuit Breaker CB1PA)



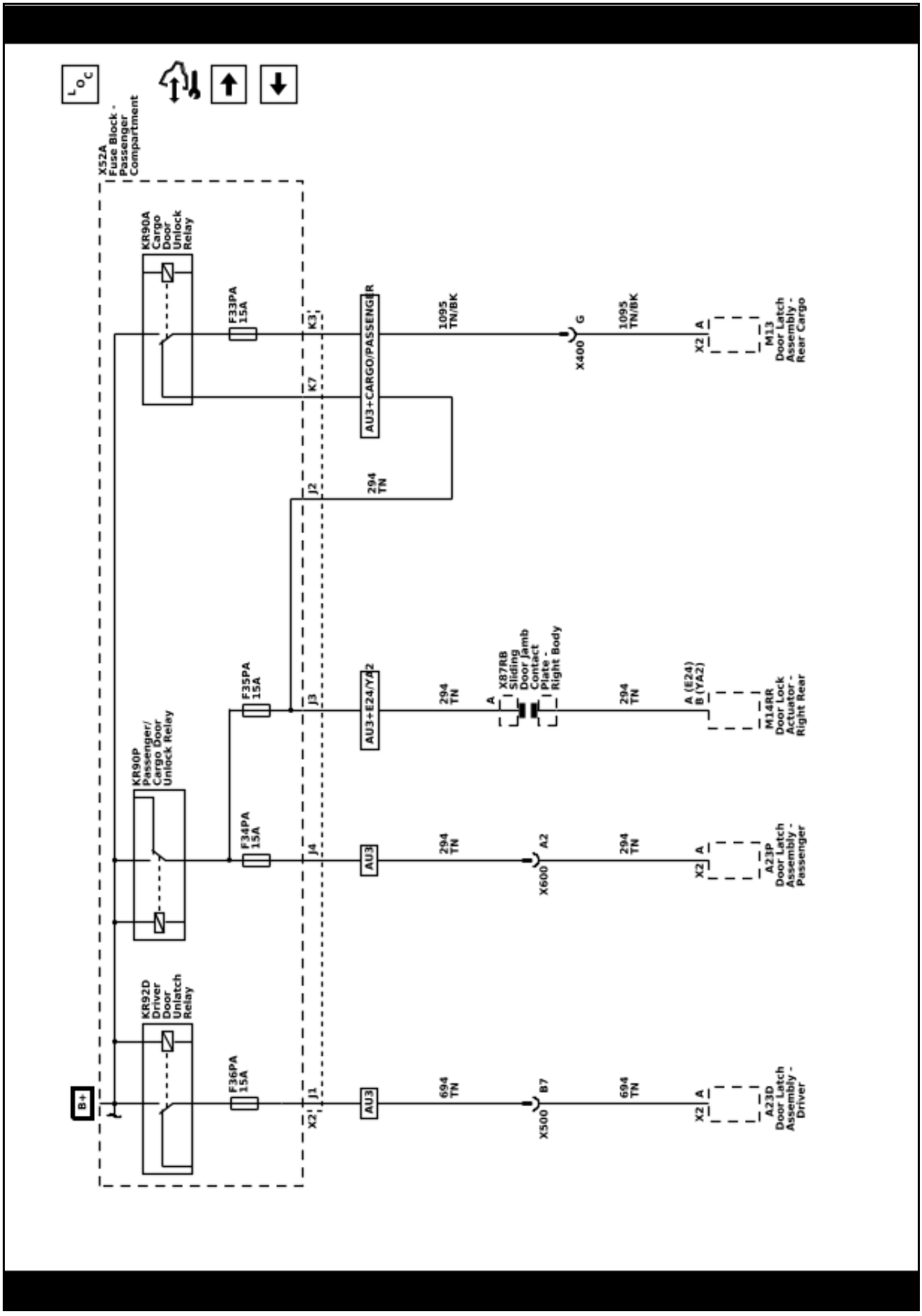
Power Distribution Schematics (Ignition Switch and Fuse F22PA)



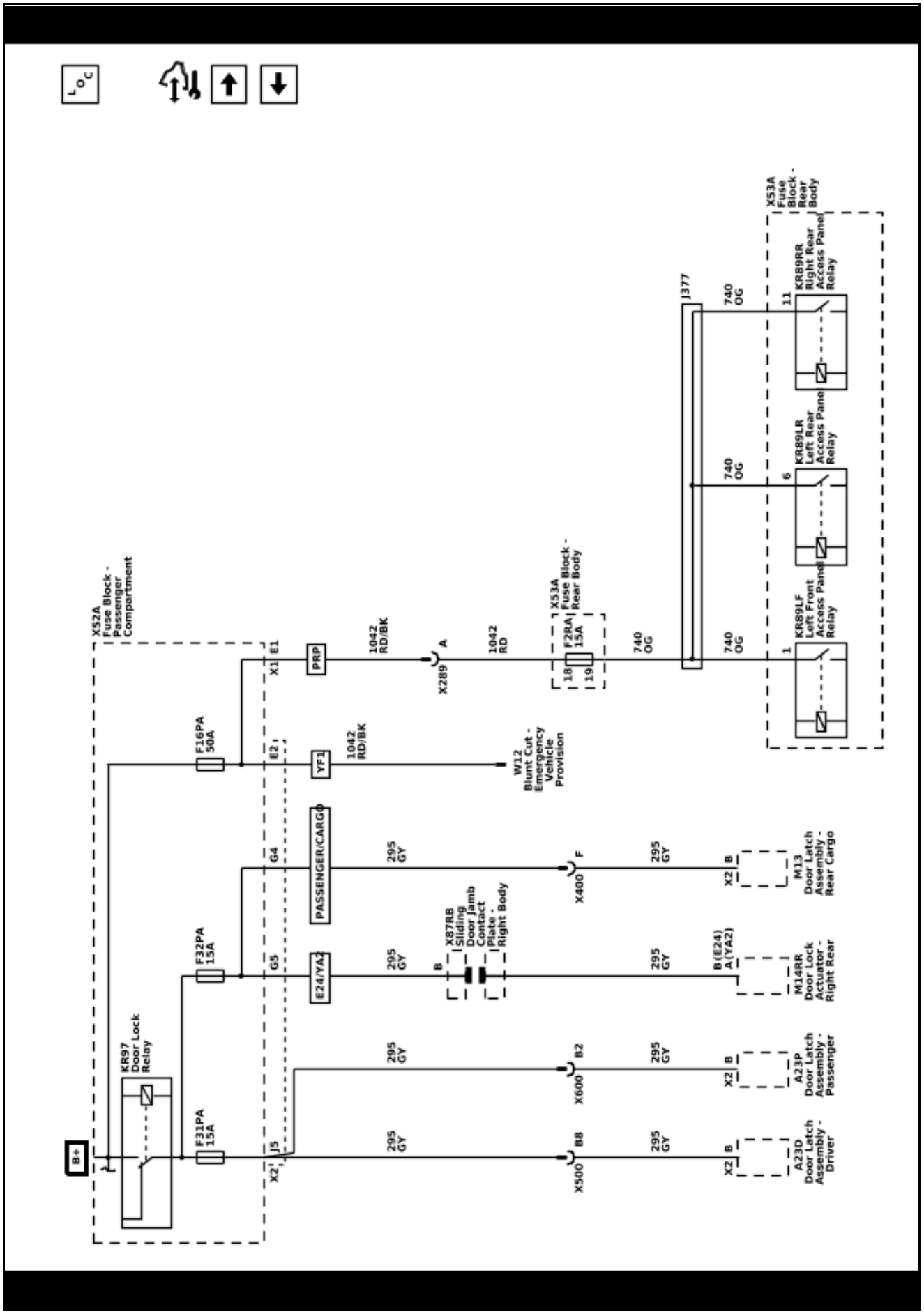
Power Distribution Schematics (Fuses F10PA, F17PA, F18PA, F37PA, F38PA, and Circuit Breaker CB2PA)



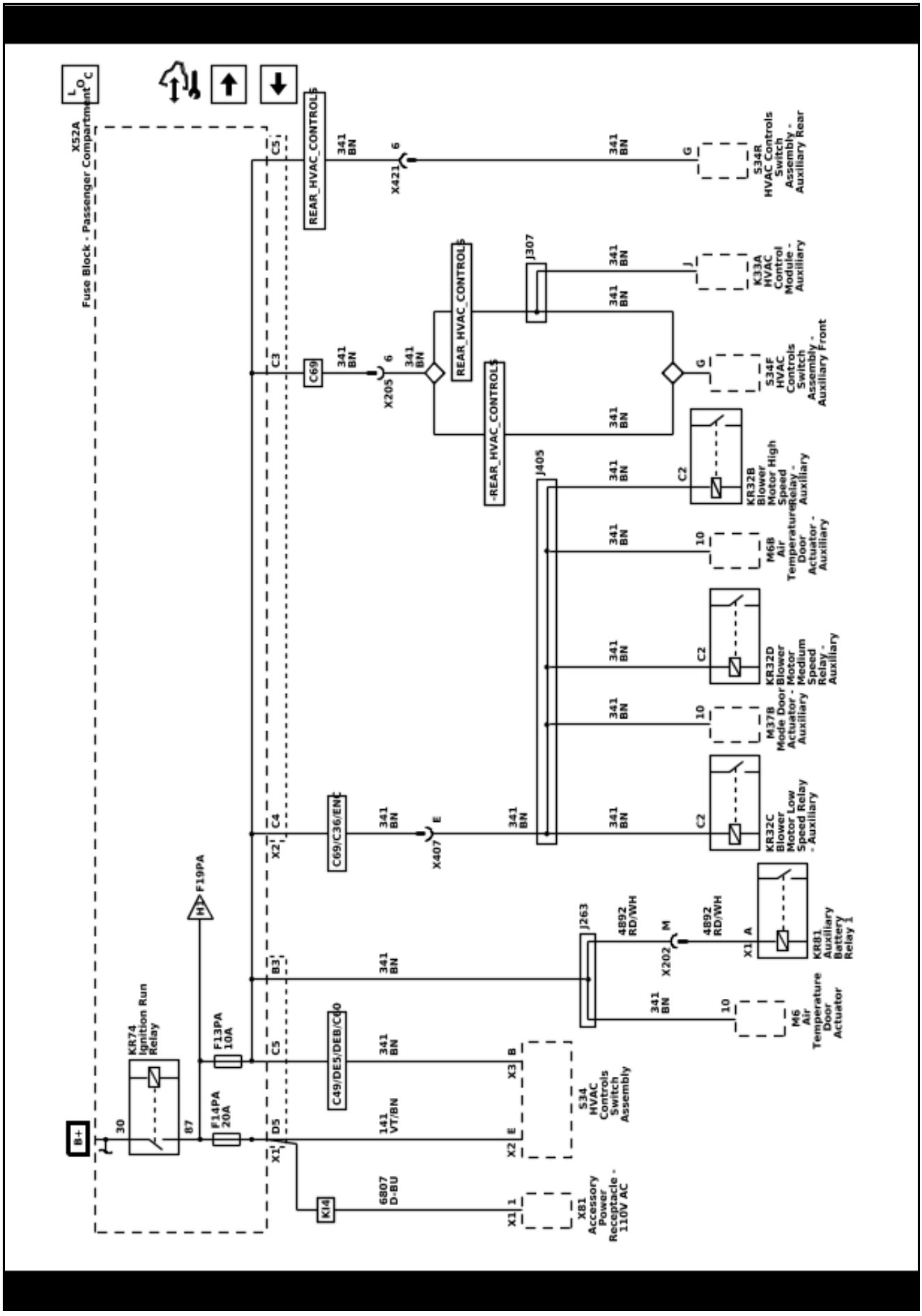
Power Distribution Schematics (Fuses F33PA, F34PA, F35PA, and F36PA)



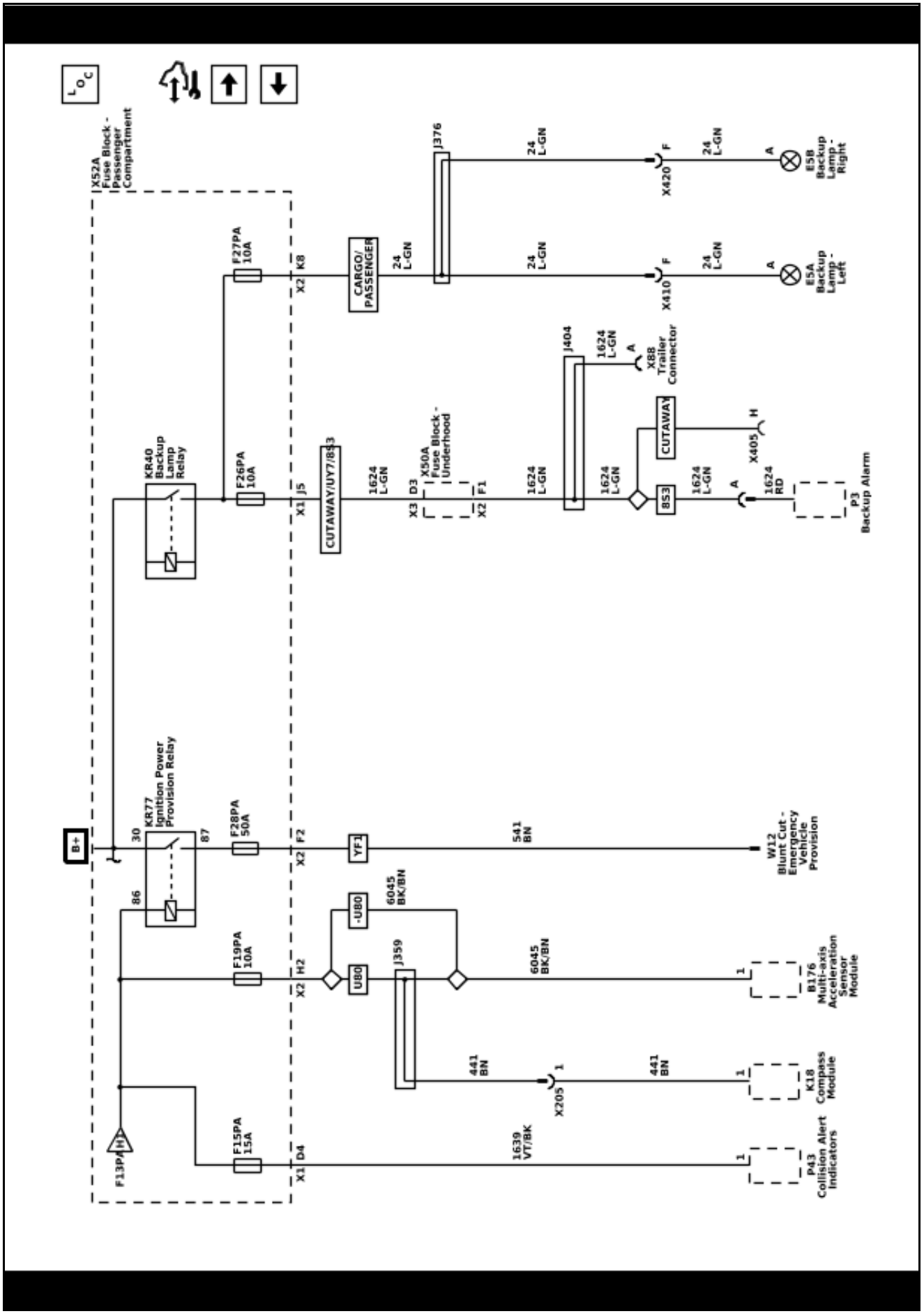
Power Distribution Schematics (Fuses F16PA, F31PA, F32PA, and F2RA)



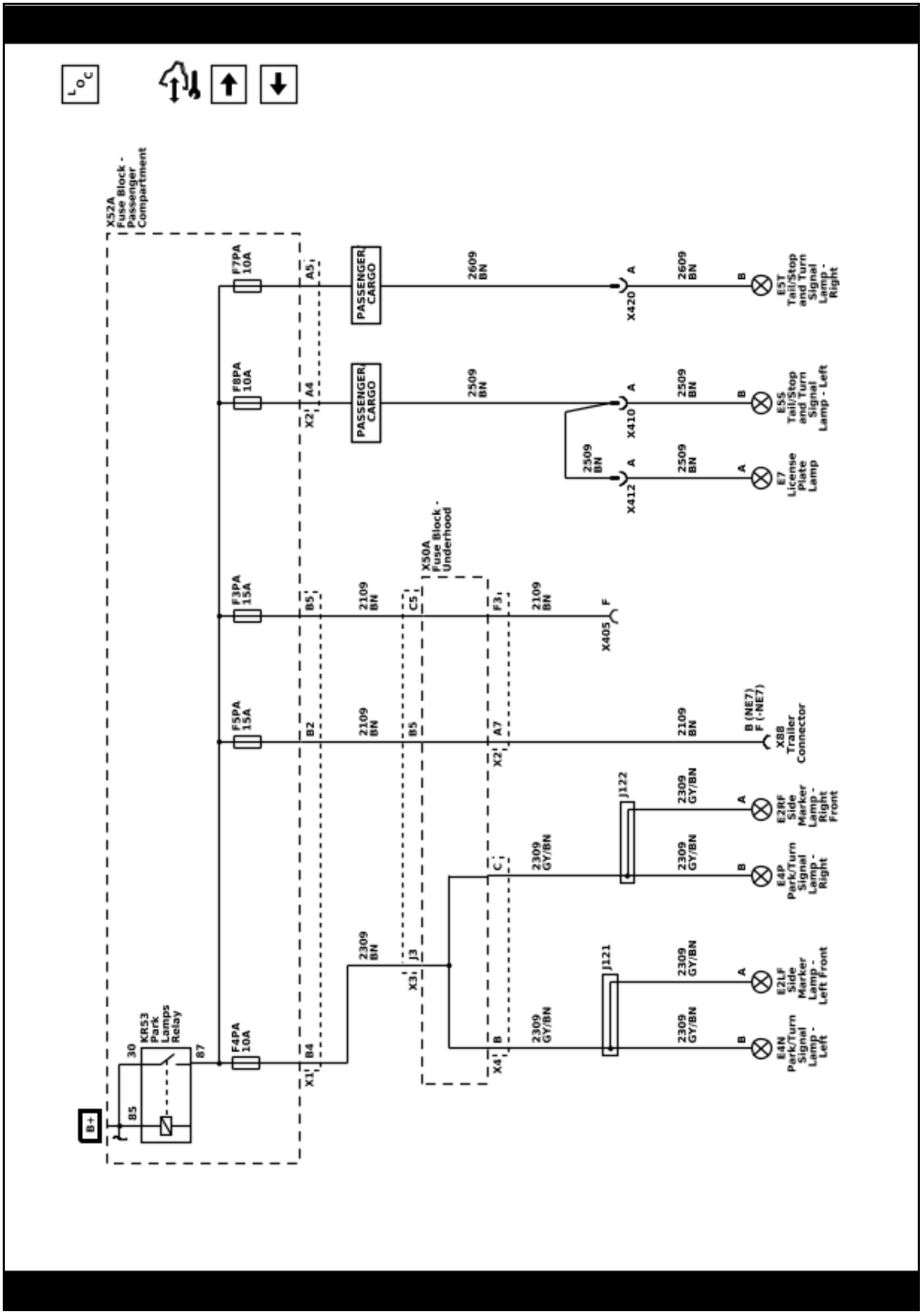
Power Distribution Schematics (Fuses F13PA and F14PA)



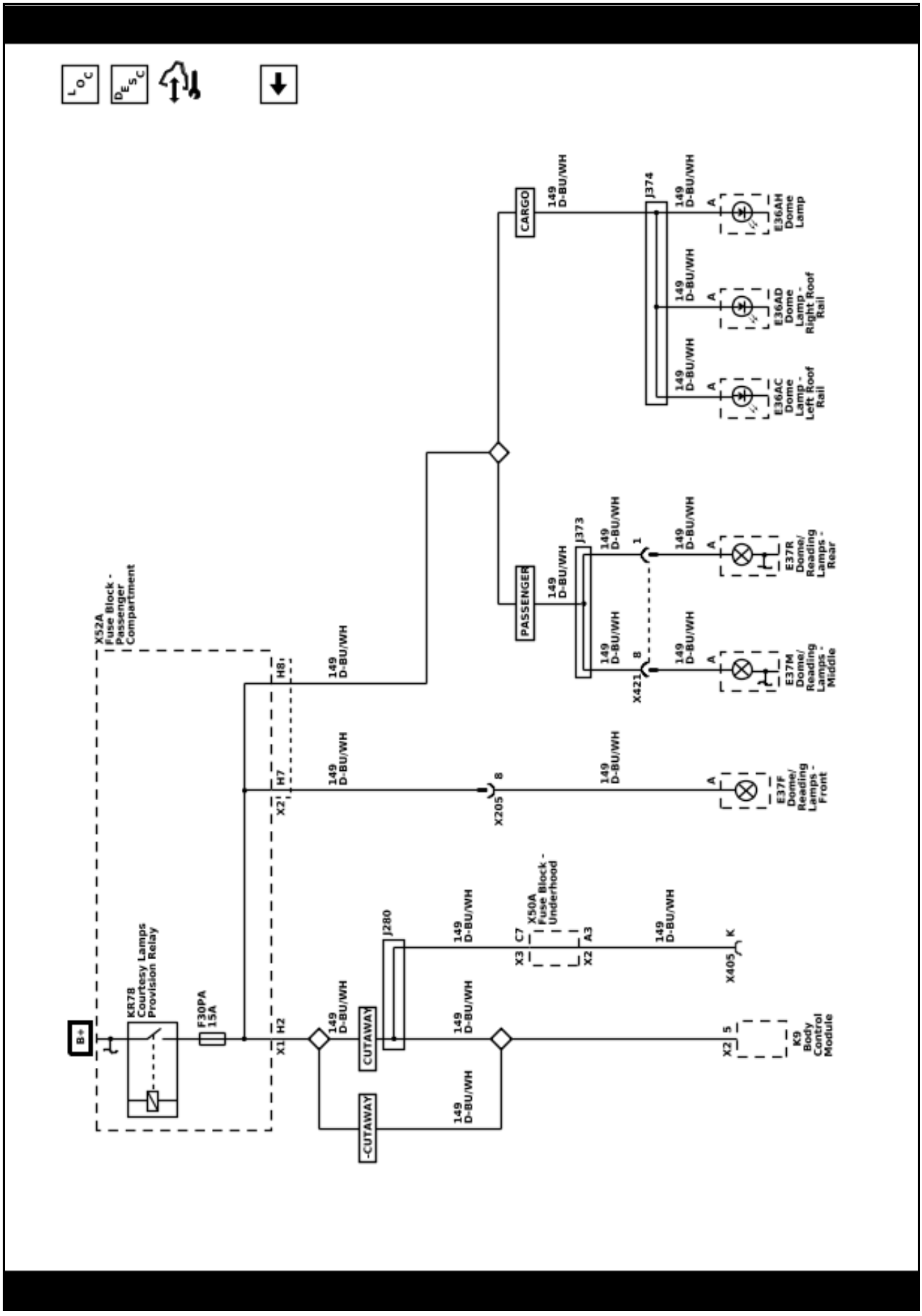
Power Distribution Schematics (Fuses F19PA, F26PA, F27PA, and F28PA)



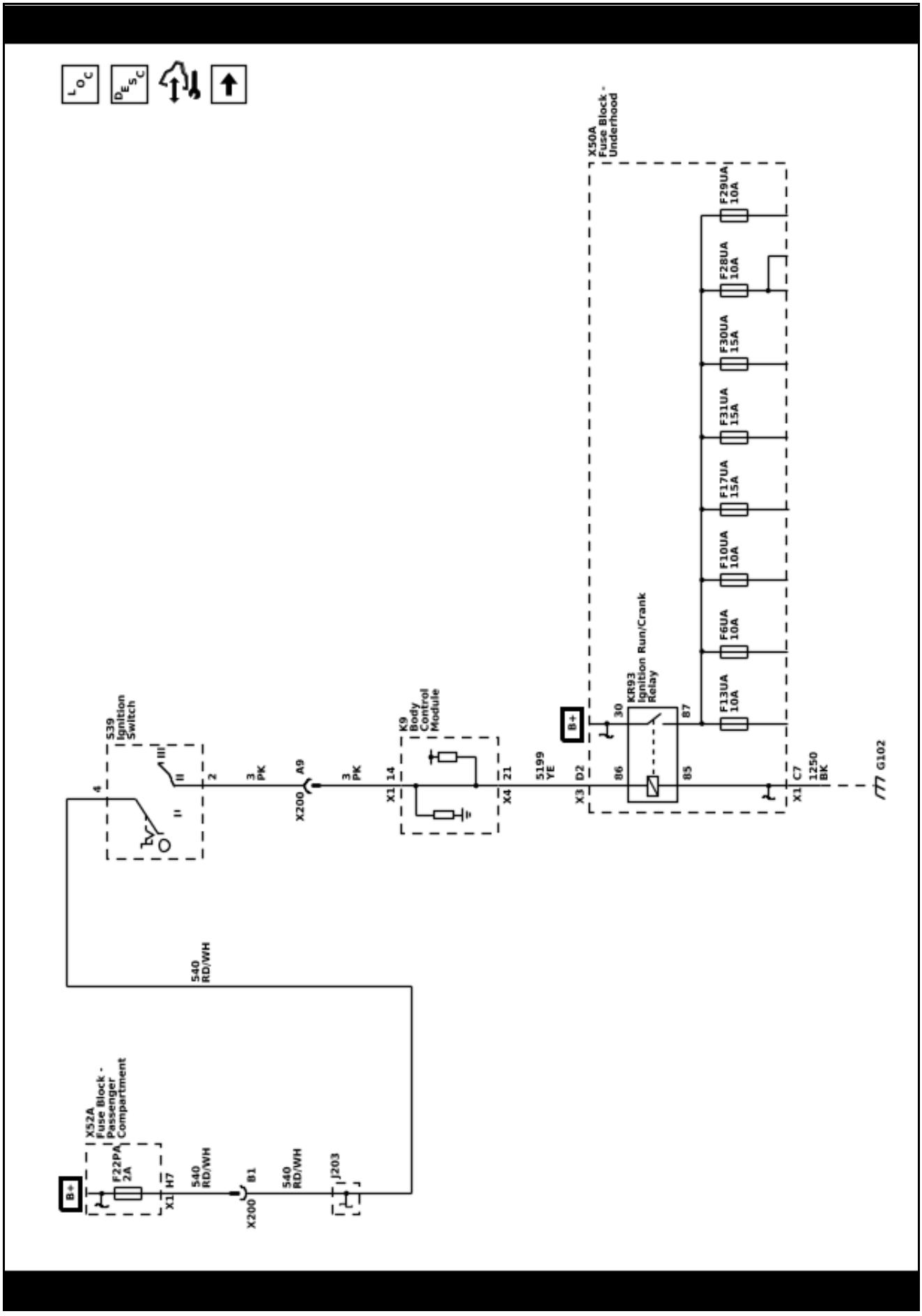
Power Distribution Schematics (Fuses F3PA, F4PA, F5PA, F7PA, and F8PA)



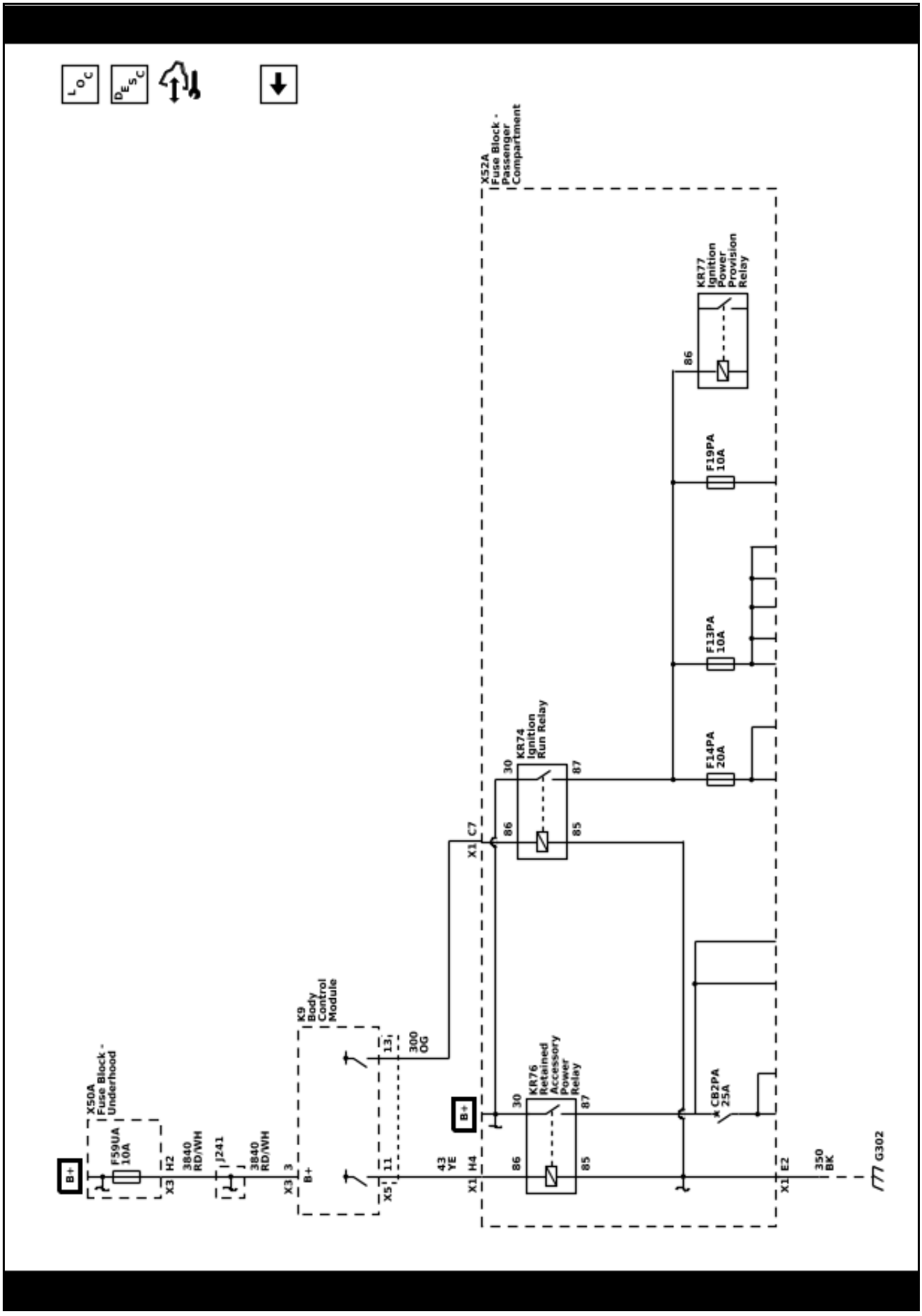
Power Distribution Schematics (Fuse F30PA)



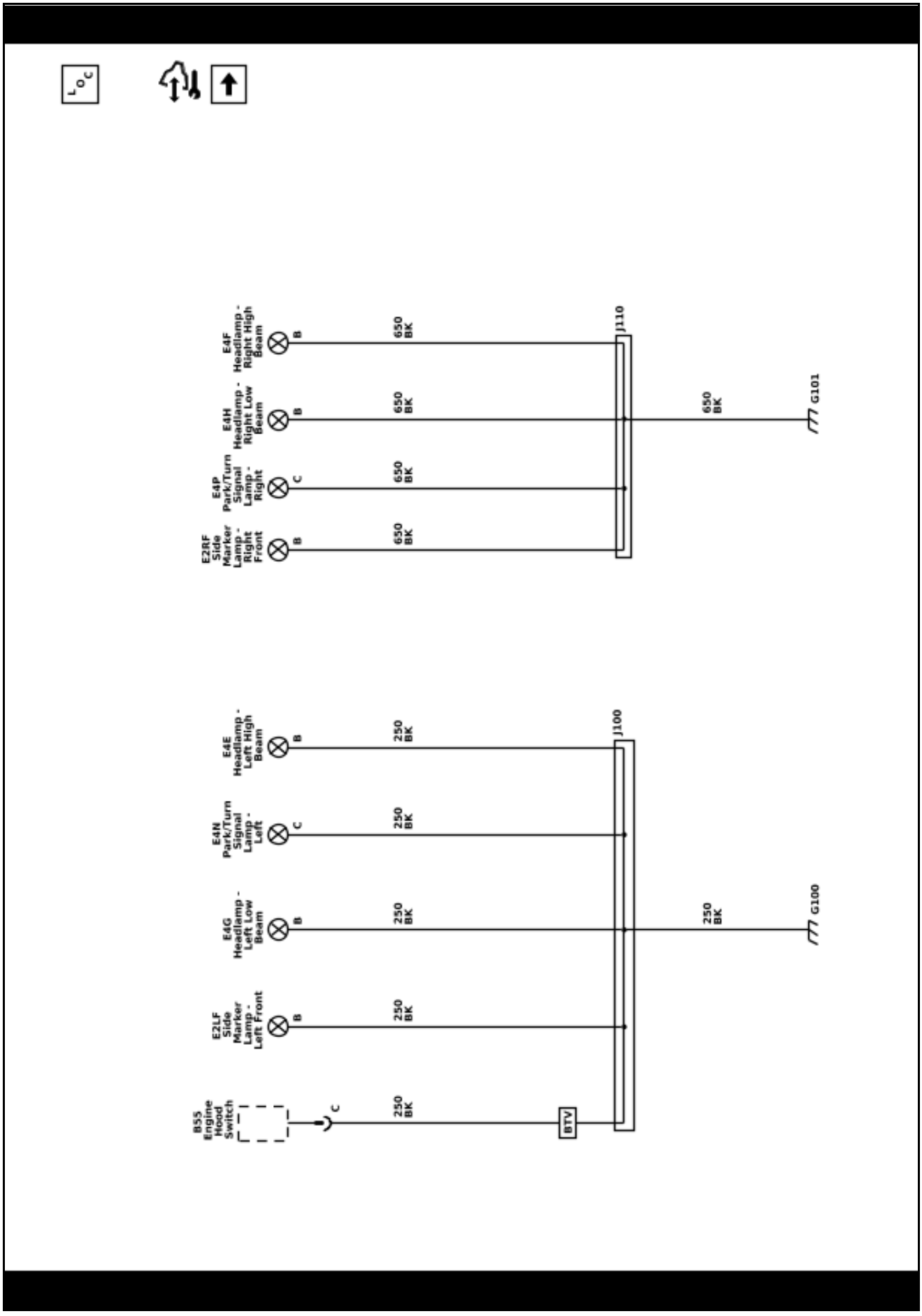
Power Moding Schematics (Ignition Run/Crank Relay)



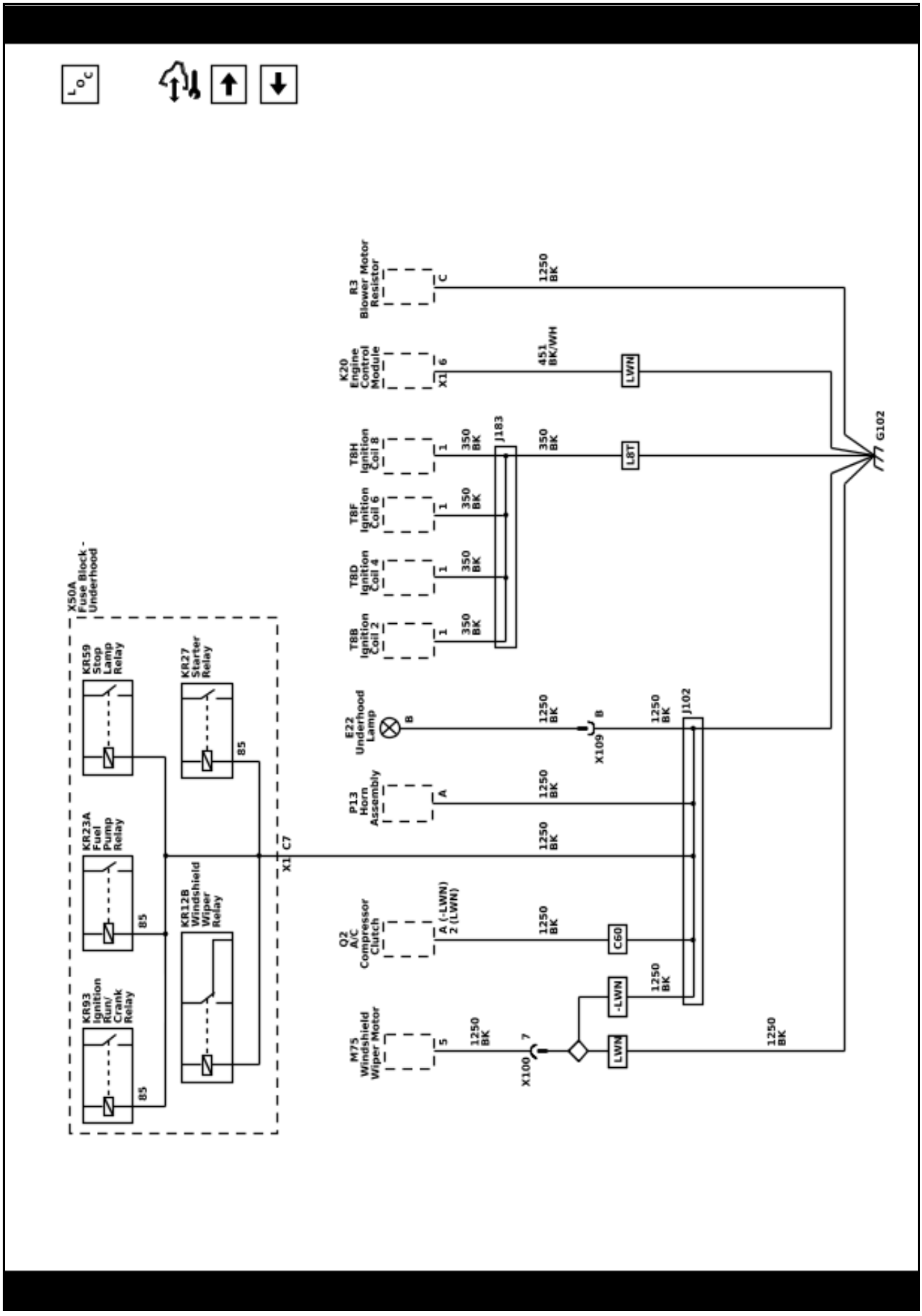
Power Moding Schematics (Retained Accessory Power Relay and Ignition Run Relay)



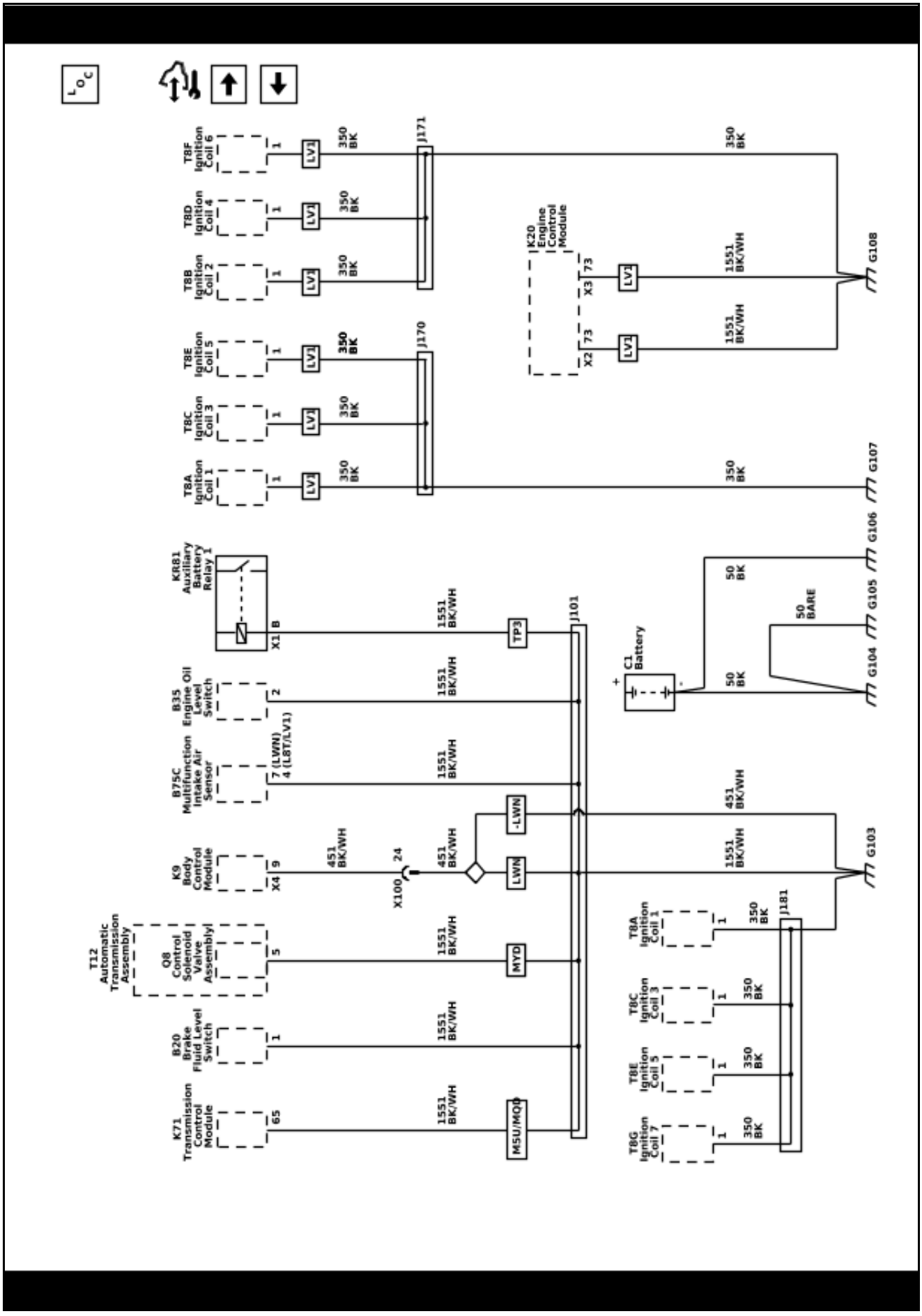
Ground Distribution Schematics (G100 and G101)



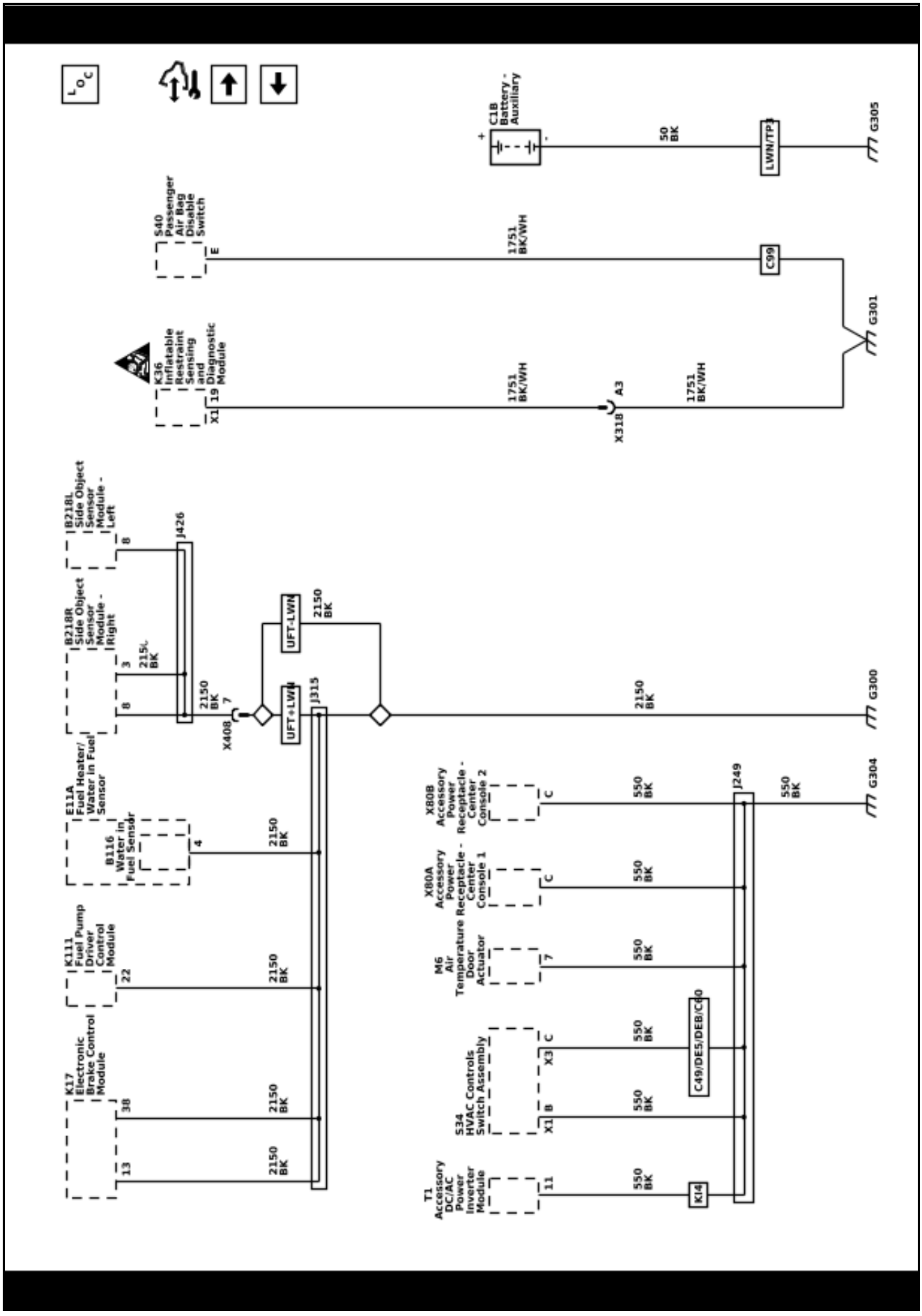
Ground Distribution Schematics (G102)



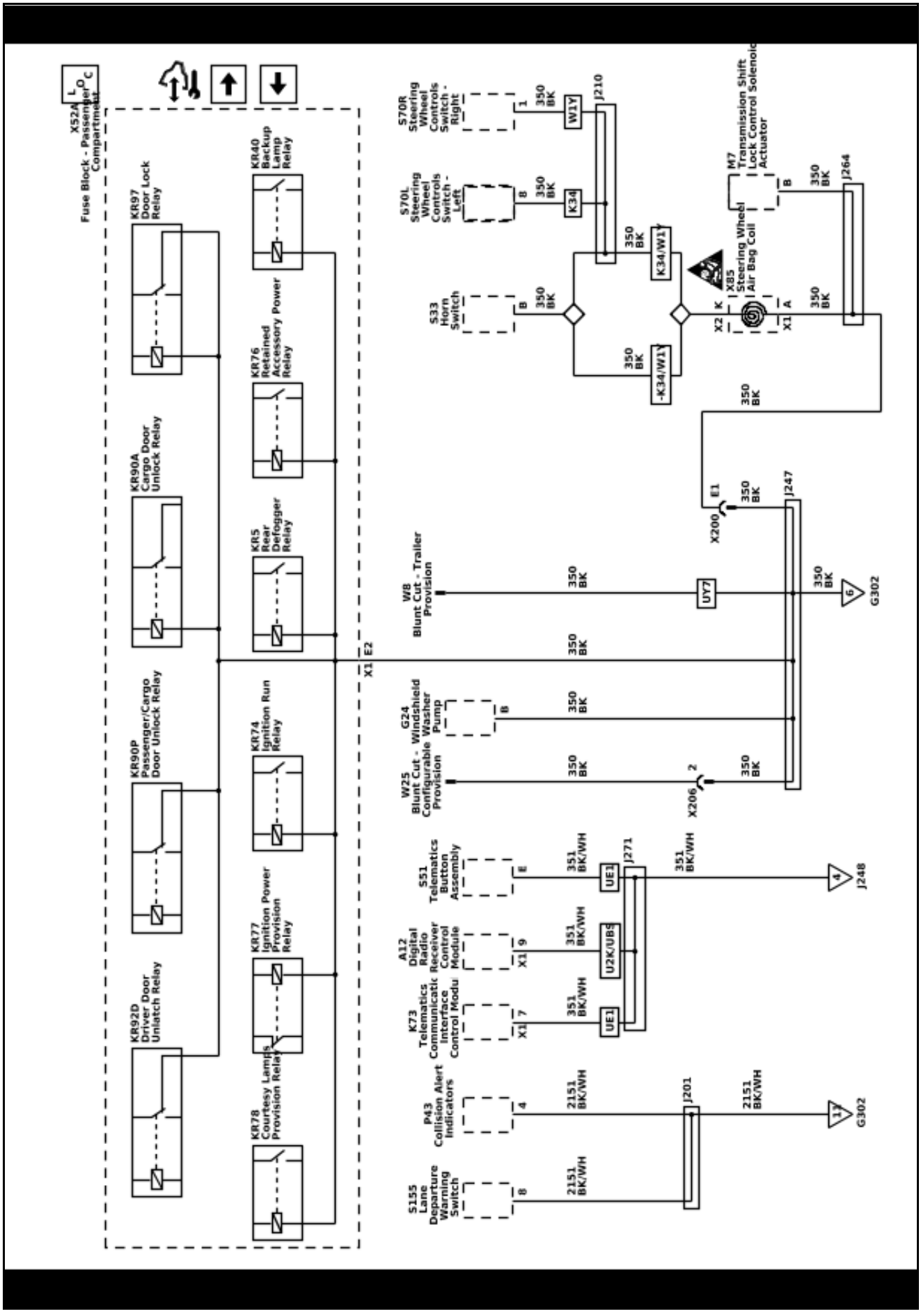
Ground Distribution Schematics (G103, G104, G105, G106, G107 and G108)



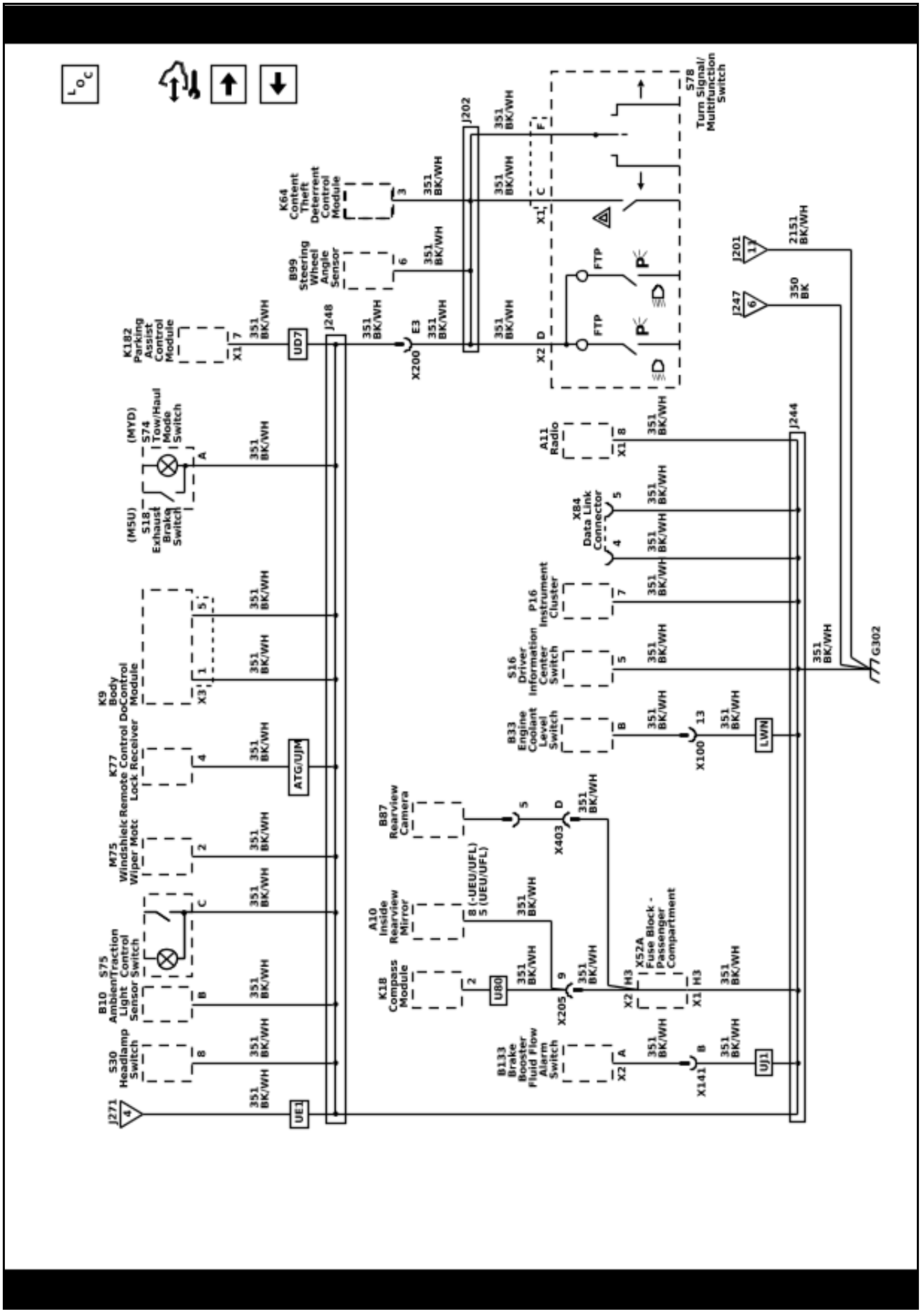
Ground Distribution Schematics (G300, G301, G304, and G305)



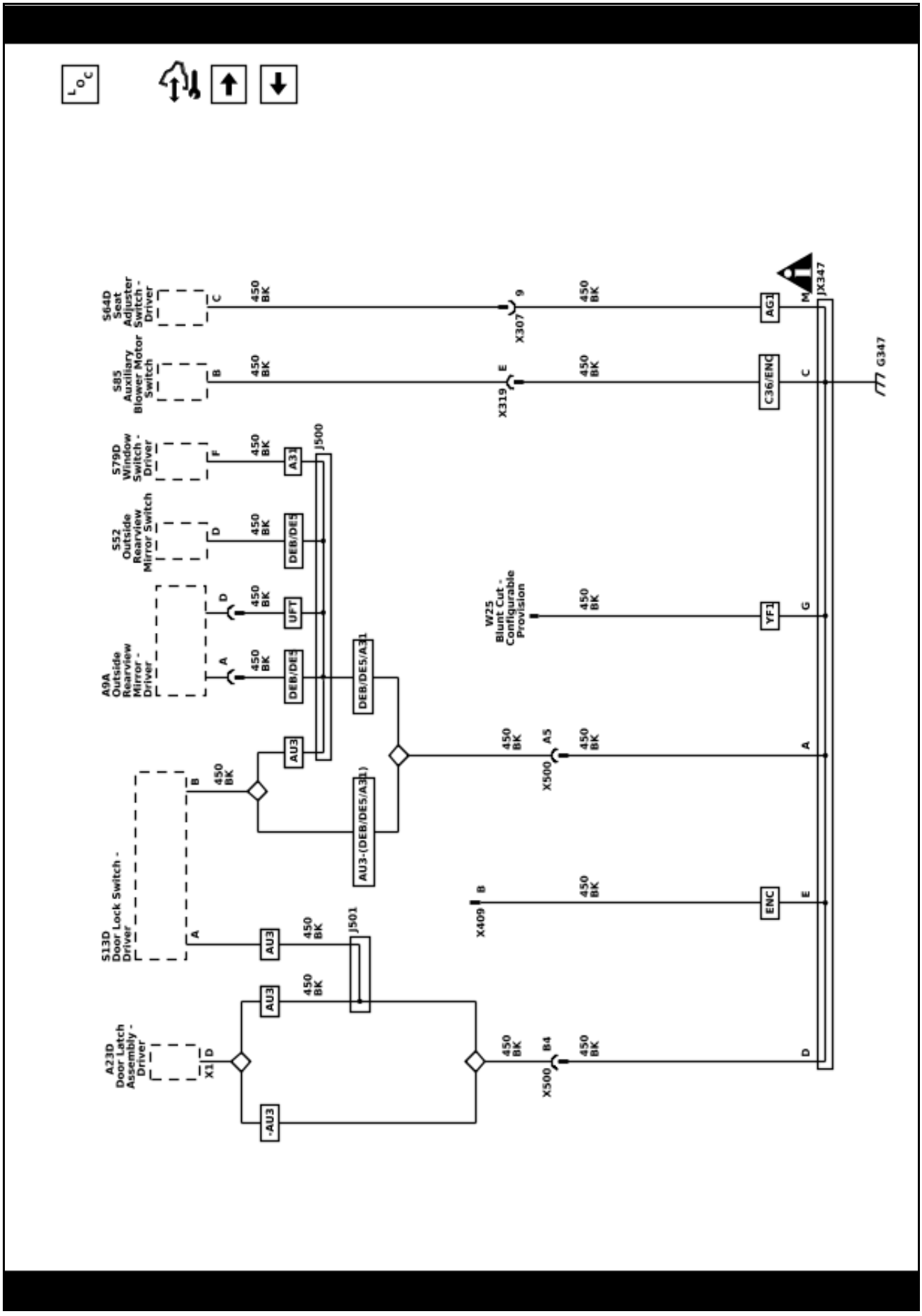
Ground Distribution Schematics (G302 (1 of 2))



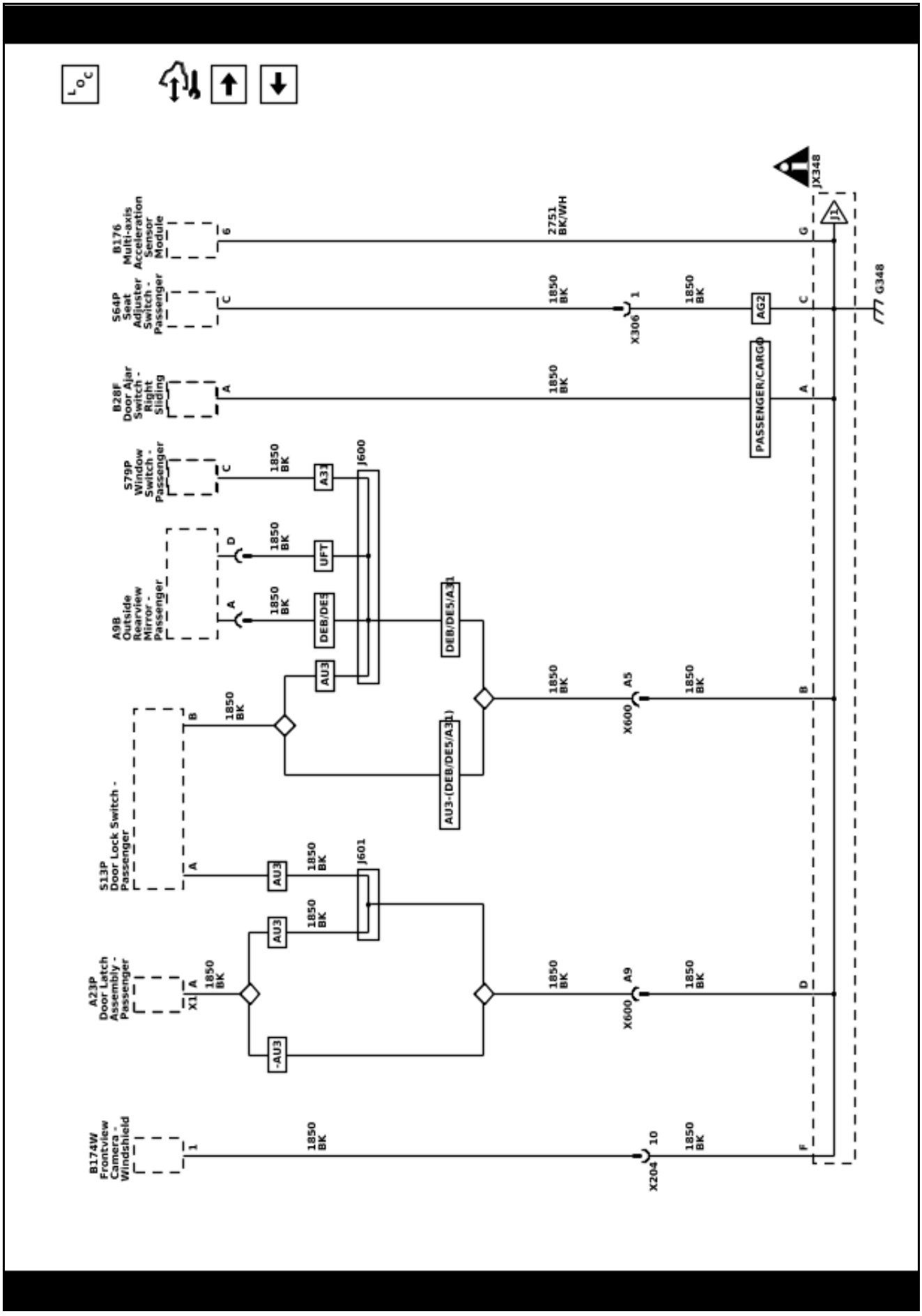
Ground Distribution Schematics (G302 (2 of 2))



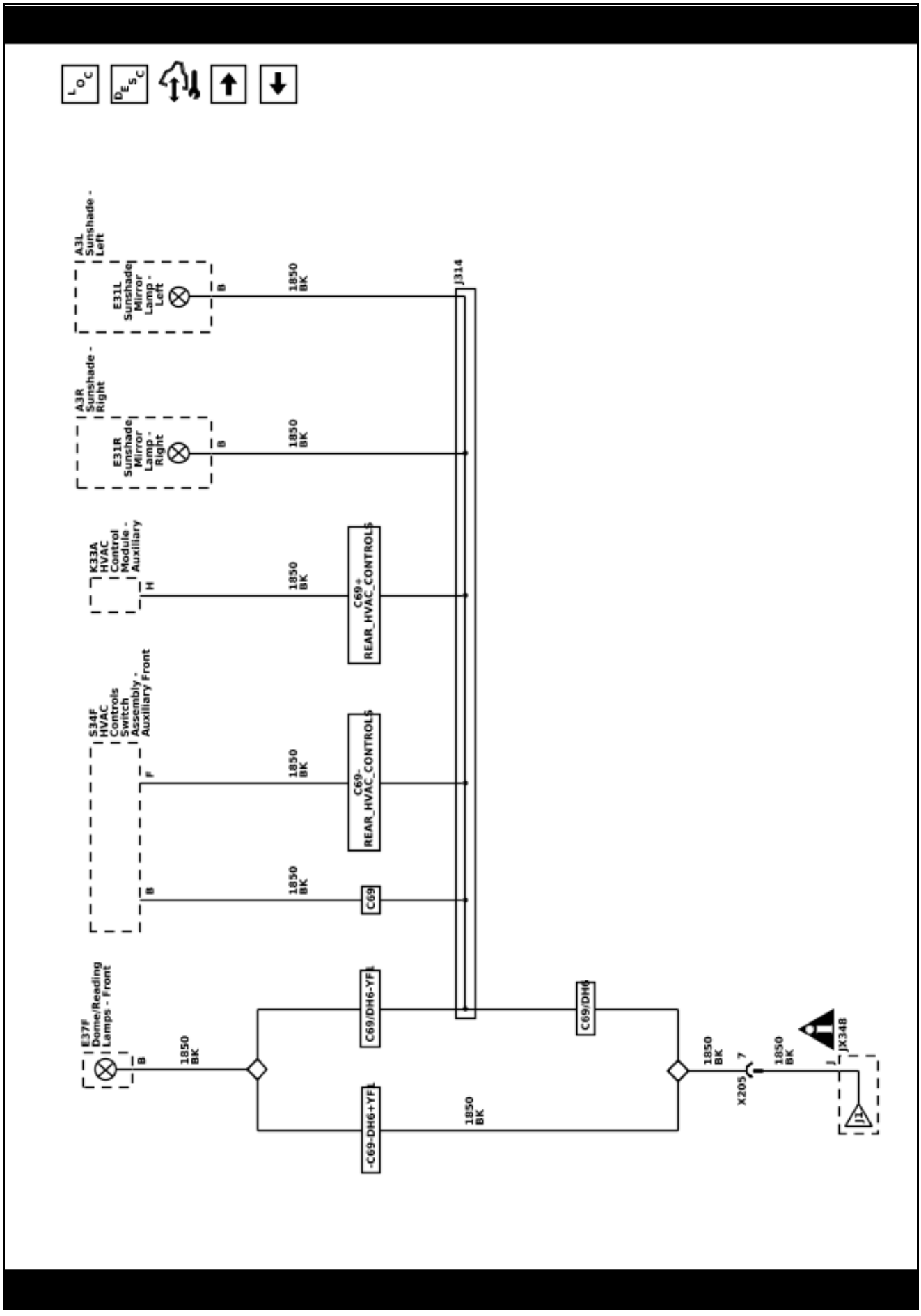
Ground Distribution Schematics (G347)



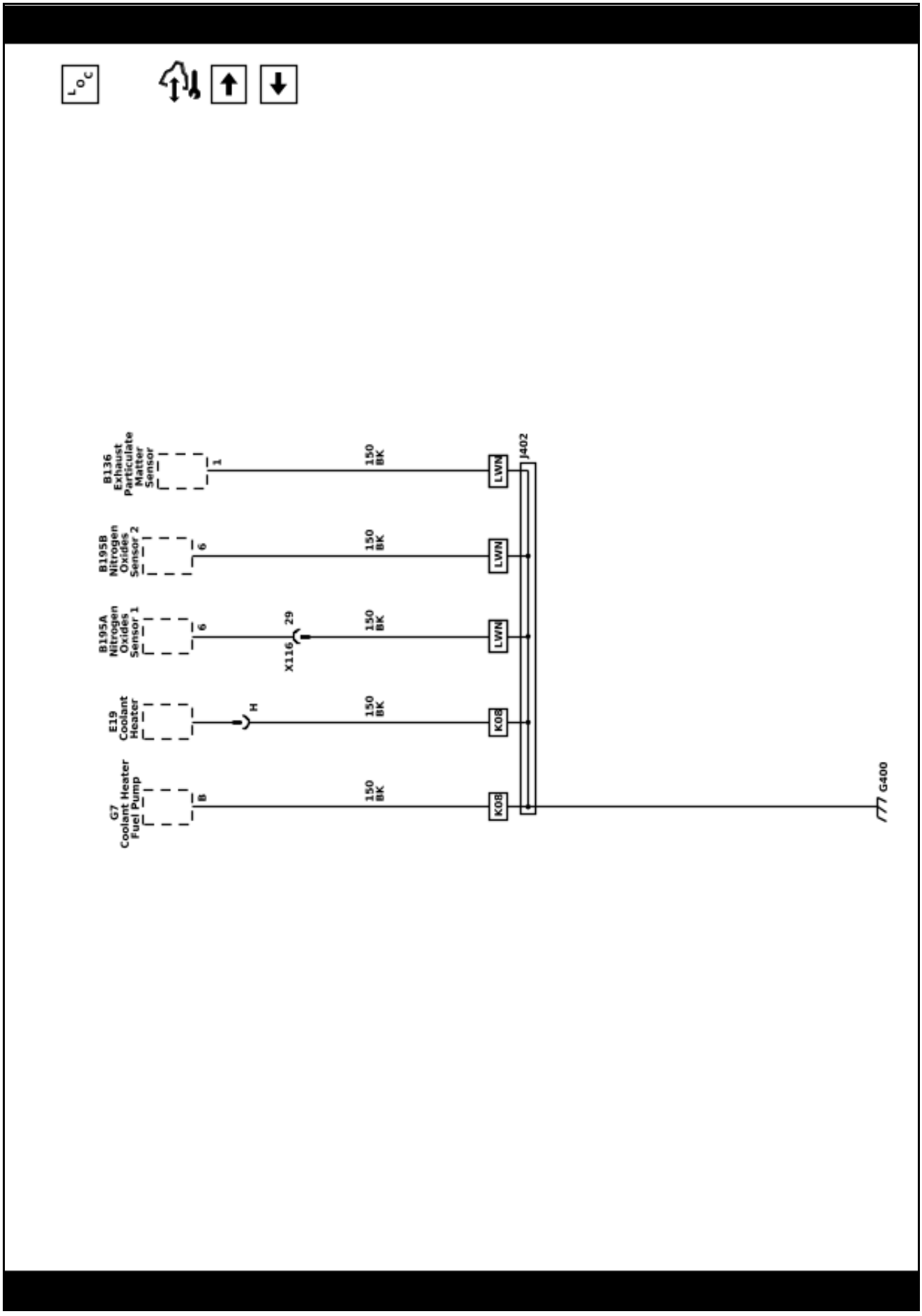
Ground Distribution Schematics (G348 (1 of 2))



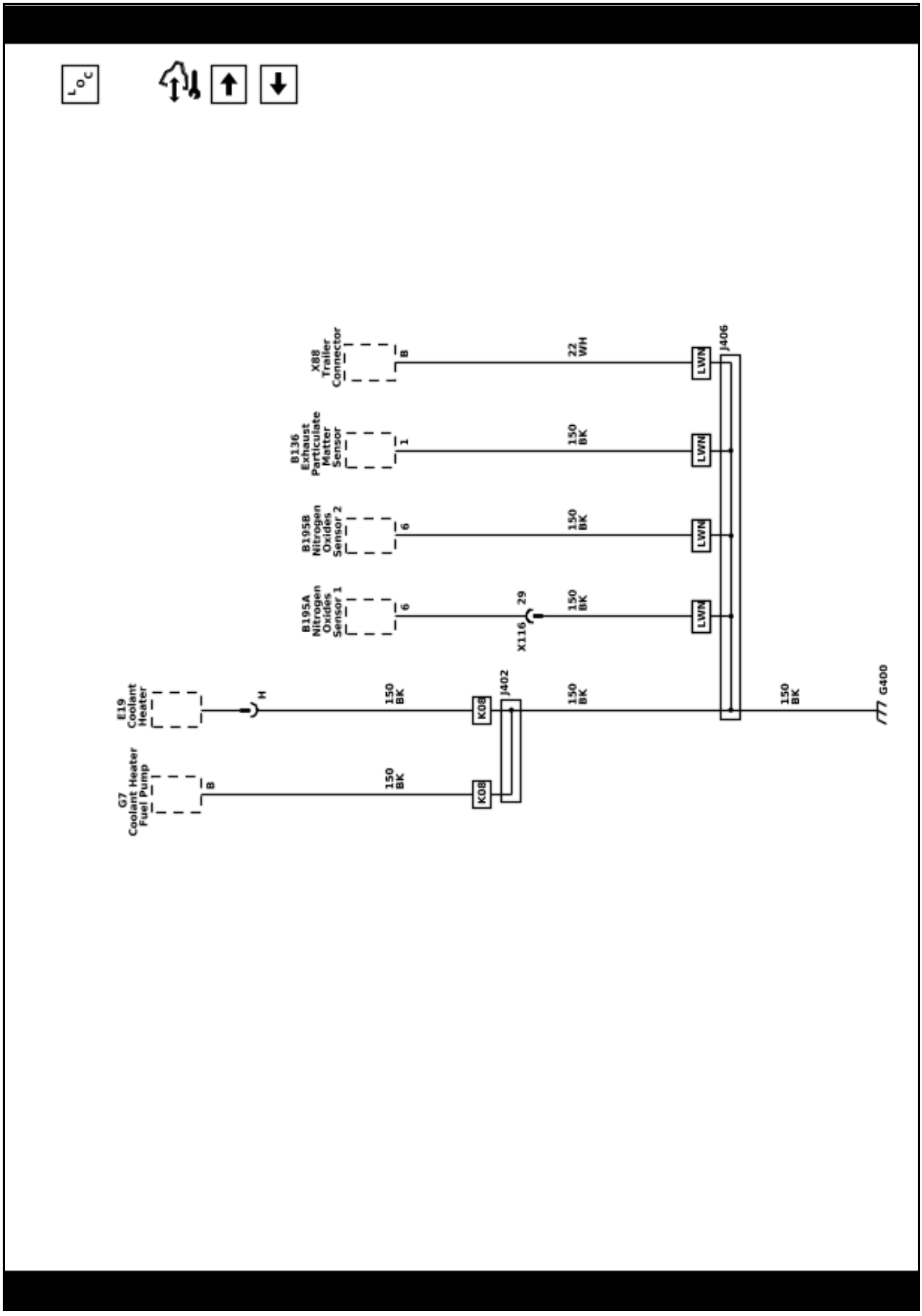
Ground Distribution Schematics (G348 (2 of 2))



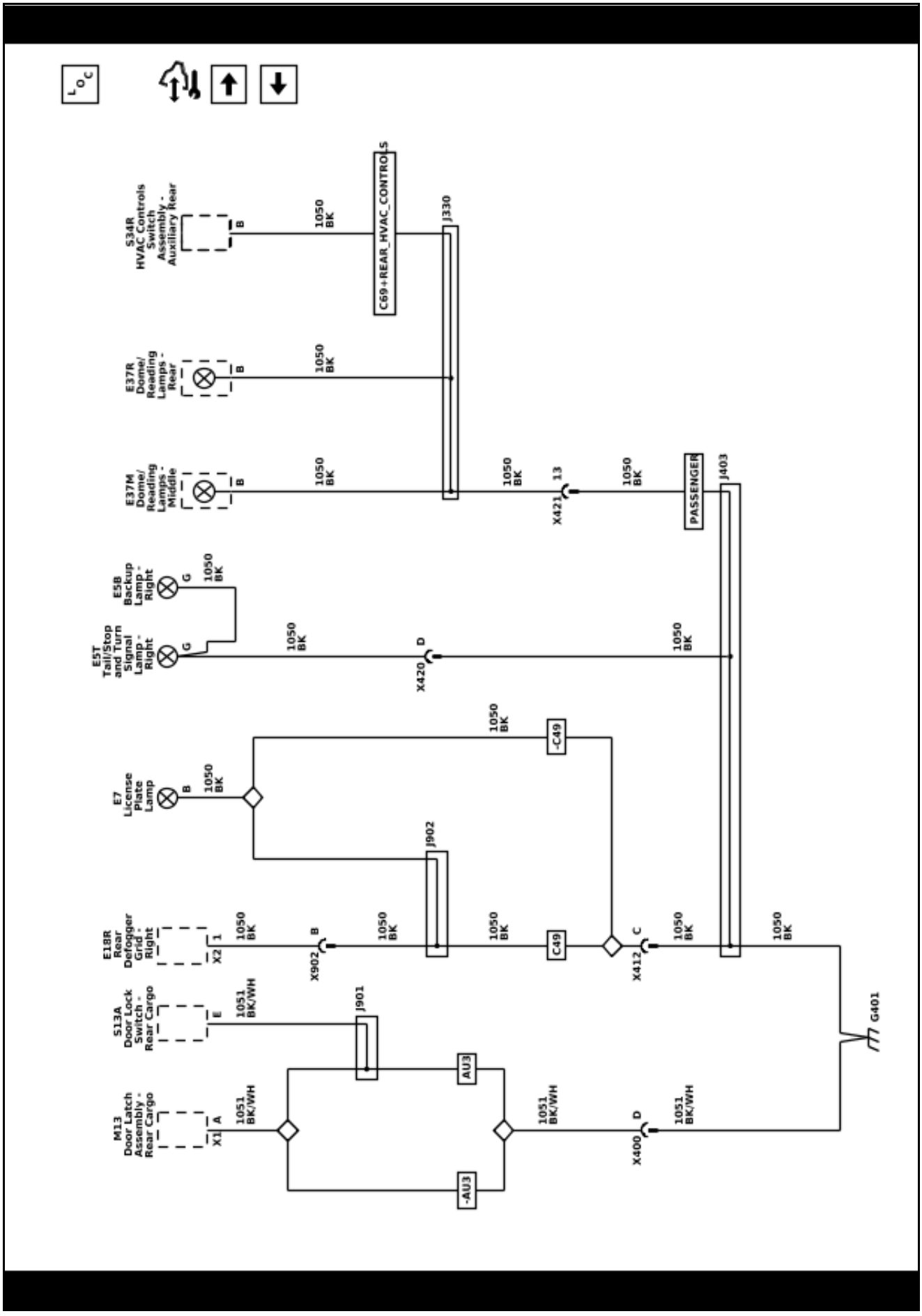
Ground Distribution Schematics (G400 (Without UY7))



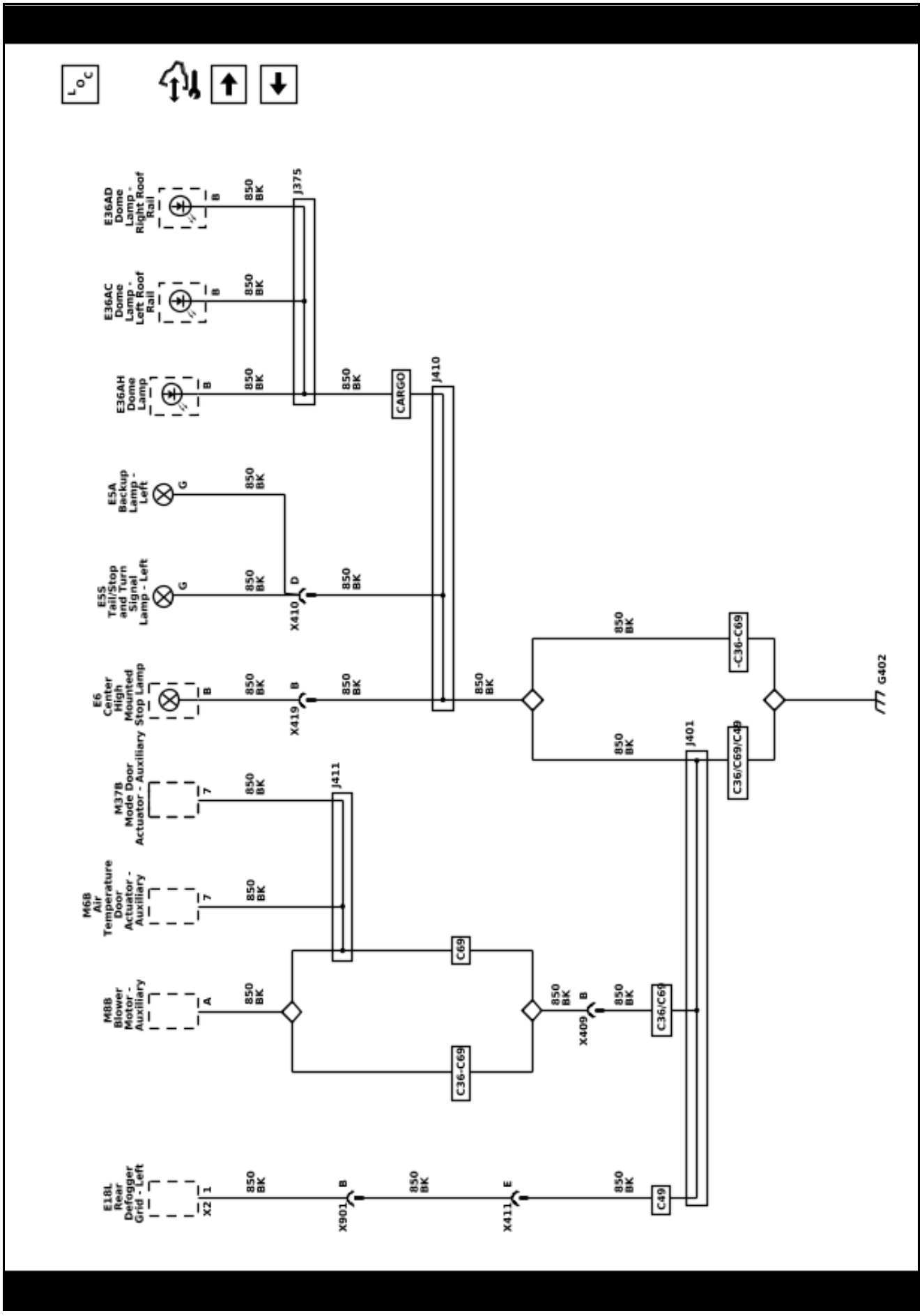
Ground Distribution Schematics (G400 (With UY7))



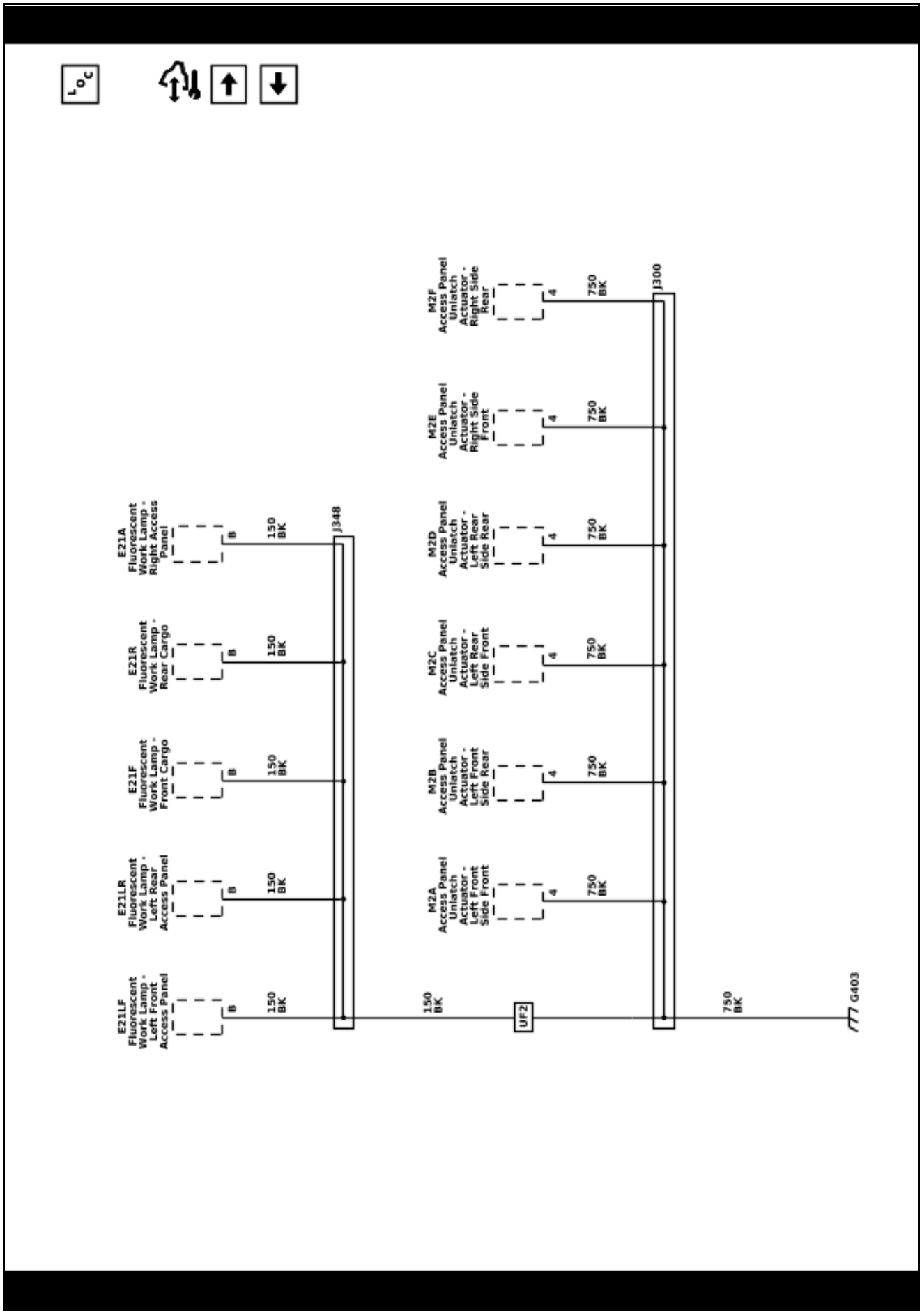
Ground Distribution Schematics (G401 (Passenger or Cargo))



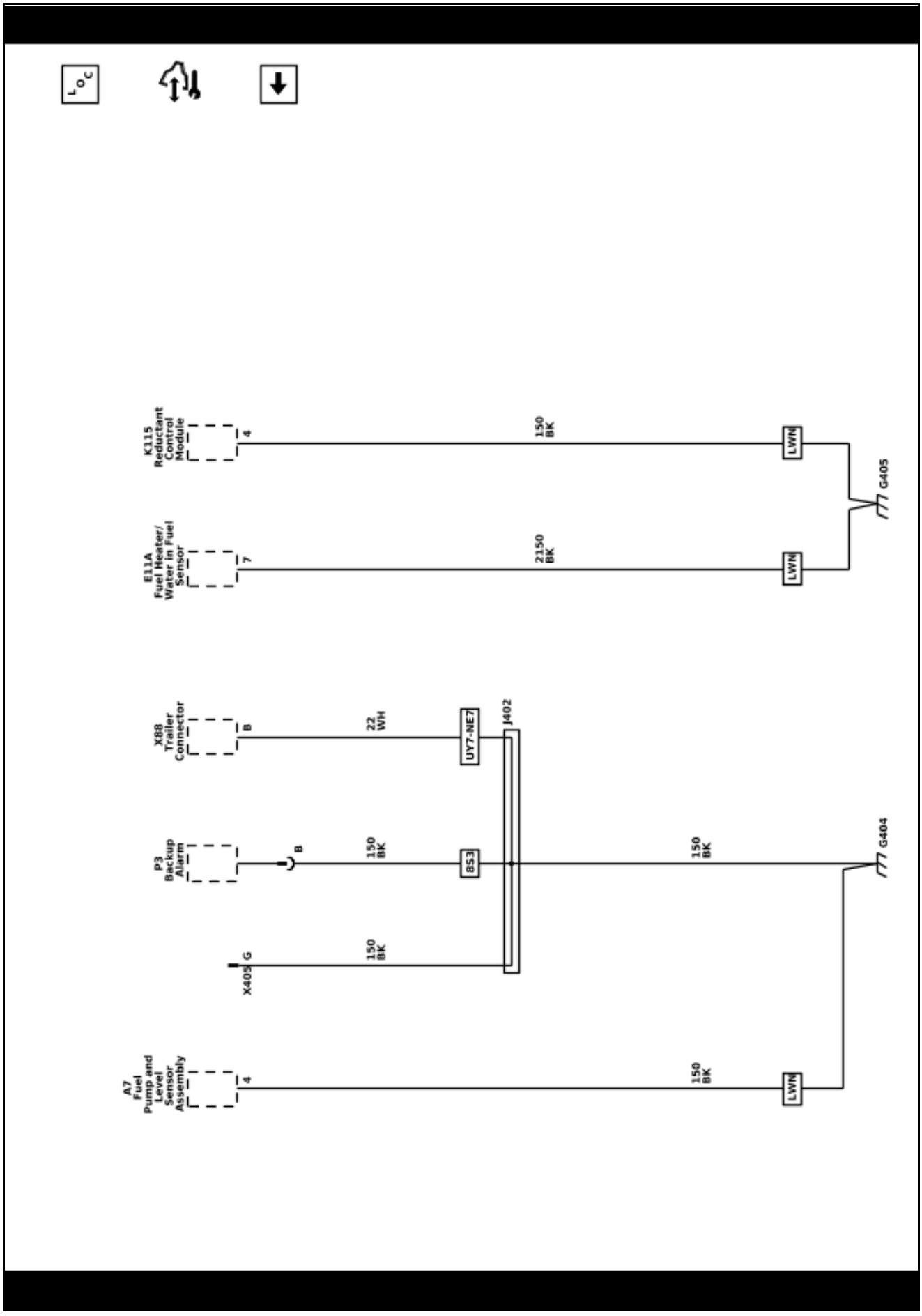
Ground Distribution Schematics (G402 (Passenger or Cargo))



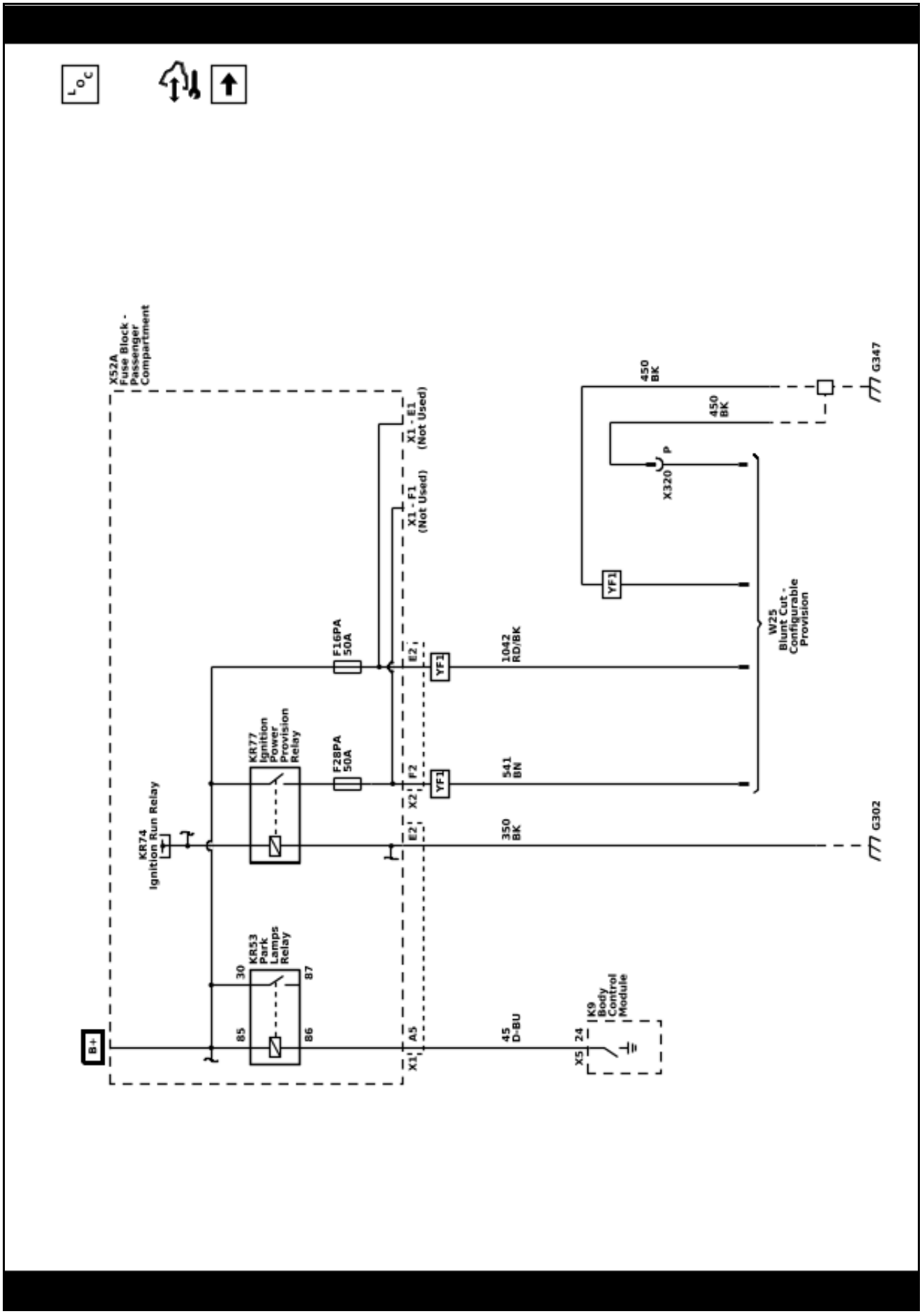
Ground Distribution Schematics (G403 (PRP))


5483218
E21LF Fluorescent Work Lamp - Left Front Access Panel
E21LR Fluorescent Work Lamp - Left Rear Access Panel
E21F Fluorescent Work Lamp - Front Cargo
E21R Fluorescent Work Lamp - Rear Cargo
E21A Fluorescent Work Lamp - Right Access Panel
M2A Access Panel Unlatch Actuator - Left Front Side Front
M2B Access Panel Unlatch Actuator - Left Front Side Rear
M2C Access Panel Unlatch Actuator - Left Rear Side Front
M2D Access Panel Unlatch Actuator - Left Rear Side Rear
M2E Access Panel Unlatch Actuator - Right Side Front
M2F Access Panel Unlatch Actuator - Right Side Rear
150 BK
750 BK
J348
J300
UF2
G403

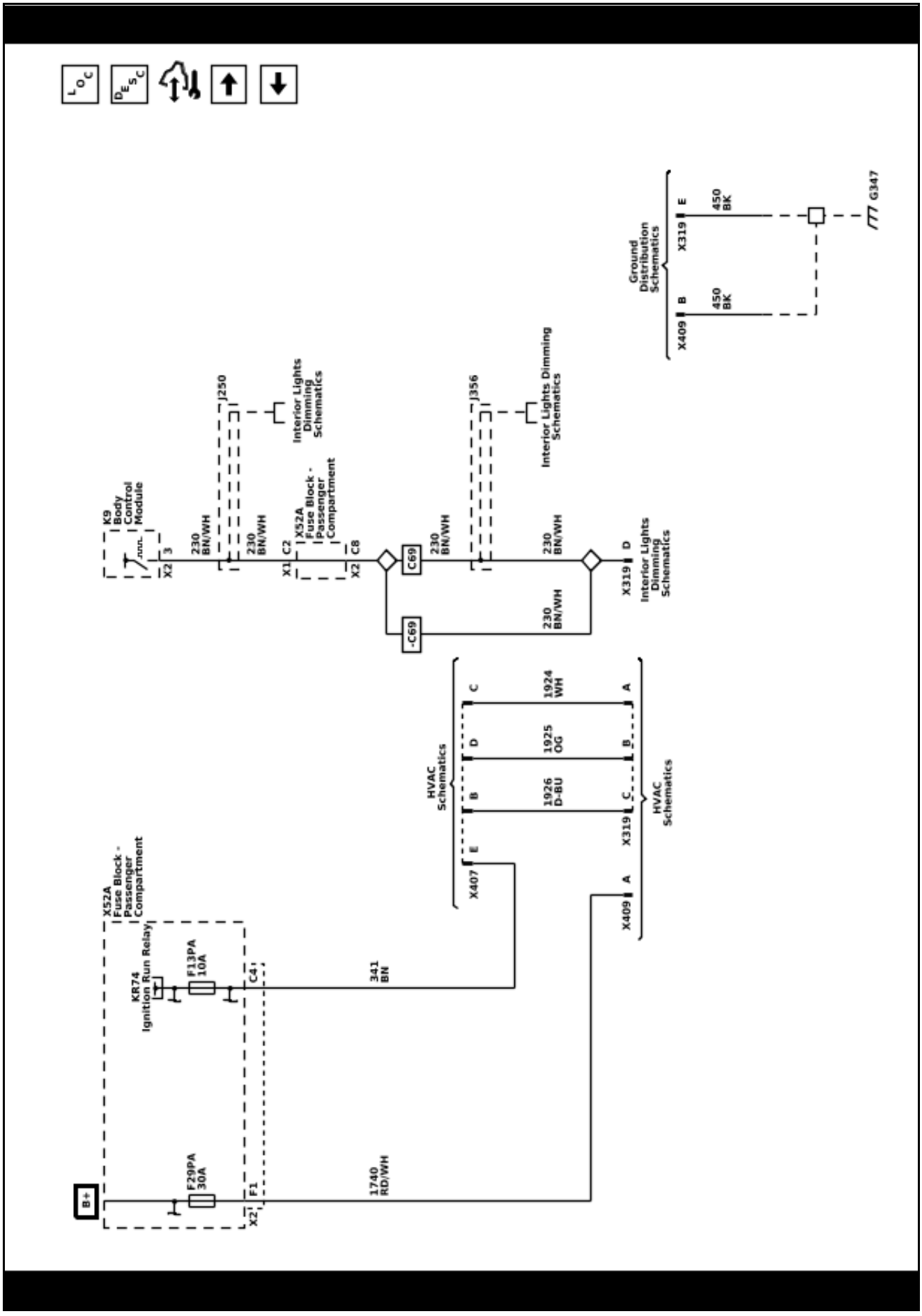
Ground Distribution Schematics (G404 and G405)



Upfitter Provision Schematics (Power, Ground, and Relay Controls)

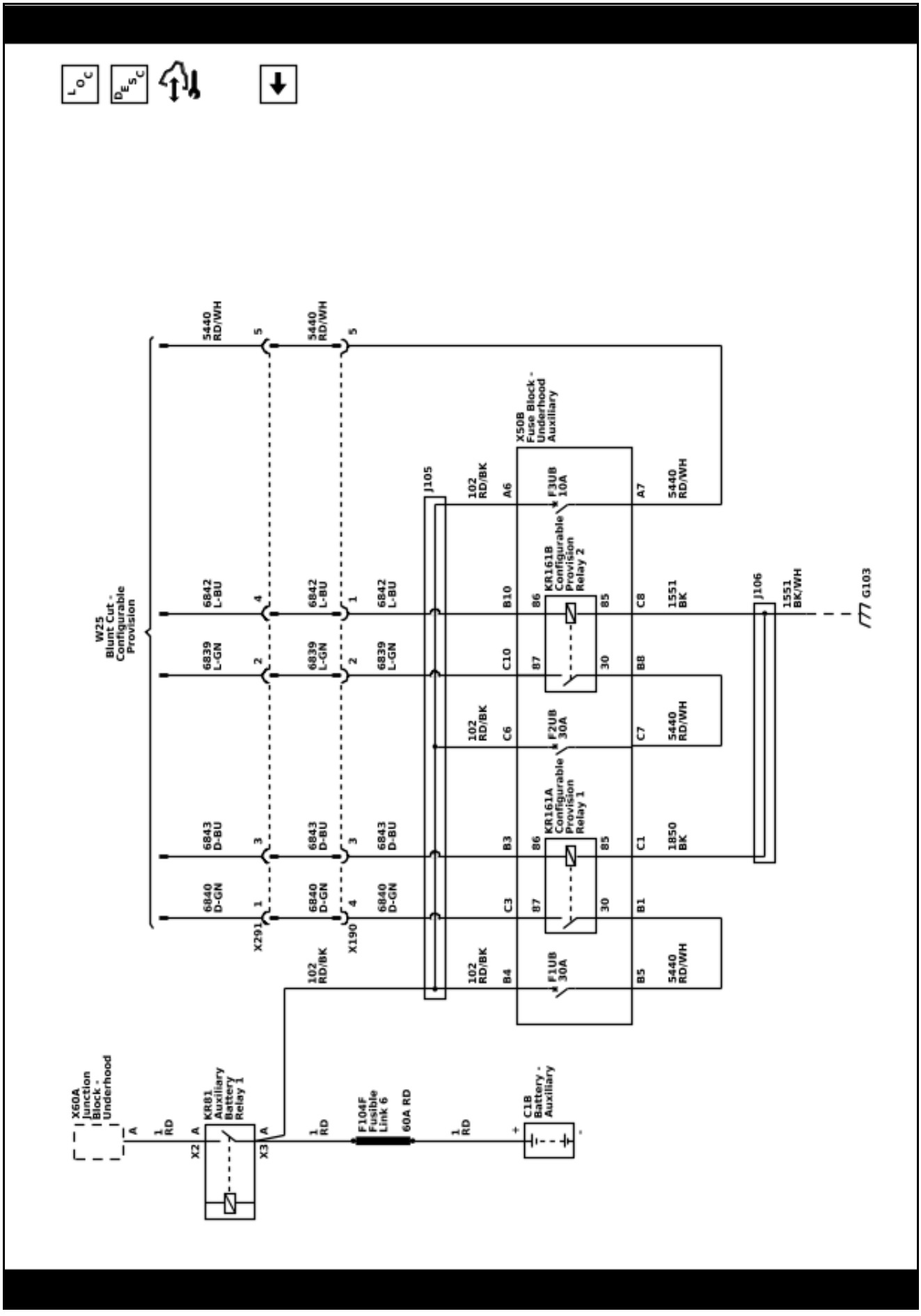


Upfitter Provision Schematics (Rear Heat Auxiliary (ENC))



5483221

Upfitter Provision Schematics (Upfitter Fuse Block (9L7))



5483222

Component Locator

Master Electrical Component List

Code	Name	Option	Location	Locator View	Connector End View
A3L	Sunshade - Left	DH6	On the upper left of the headliner	—	—
A3R	Sunshade - Right	DH6	On the upper right of the headliner	—	A3R Sunshade - Right
A5	Driver Information Center	—	Integral to P16 Instrument Cluster	—	—
A7	Fuel Pump and Level Sensor Assembly	—	In the vehicle underbody, in the fuel tank	• Fuel Tank Components (NE7) • Fuel Tank Components (Without NE7)	A7 Fuel Pump and Level Sensor Assembly (LWN)
A9A	Outside Rearview Mirror - Driver	DEB/DE5	Attached to the exterior of the left front door	Driver Door Components	A9A Outside Rearview Mirror - Driver
A9B	Outside Rearview Mirror - Passenger	DEB/DE5	Attached to the exterior of the right front door	Front Passenger Door Components	A9B Outside Rearview Mirror - Passenger
A10	Inside Rearview Mirror	—	In the passenger compartment, mounted at the top center of the windshield	—	• A10 Inside Rearview Mirror (-(UEU/UFL)) • A10 Inside Rearview Mirror (UEU/UFL)
A11	Radio	—	In the center of the instrument panel	Instrument Panel Components (1 of 2)	• A11 Radio X1 • A11 Radio X2
A12	Digital Radio Receiver Control Module	U2K/UBS	In the passenger compartment, mounted on a bracket under driver knee bolster panel	Underside of Instrument Panel Components	A12 Digital Radio Receiver Control Module X1
A23D	Door Latch Assembly - Driver	—	Towards the rear of the driver door	Driver Door Components	• A23D Door Latch Assembly - Driver X1 • A23D Door Latch Assembly - Driver X2
A23P	Door Latch Assembly - Passenger	—	Towards the rear of the passenger door	Front Passenger Door Components	• A23P Door Latch Assembly - Passenger X1 • A23P Door Latch Assembly - Passenger X2
A38	Reductant Pump and Sensor Assembly	LWN	Under the vehicle, toward the rear, inside the reductant fluid tank	Reductant Tank Components	—
A91	Mirror Display	UVC	Internal to A10 Inside Rearview Mirror	—	—
B1	A/C Refrigerant Pressure Sensor	C60	On the engine harness in the left rear side of the engine compartment	• Engine Compartment Components (2 of 2) • Front of Engine Compartment Components (1 of 2) • Left Front of the Engine Components (LWN)	• B1 A/C Refrigerant Pressure Sensor (LWN) • B1 A/C Refrigerant Pressure Sensor (-LWN)

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B1B	A/C Low Side Pressure Switch	C60	Right rear side of the engine compartment, on the side of the accumulator	• Front of Engine Compartment Components (1 of 2) • Front of Engine Compartment Components (2 of 2)	B1B A/C Low Side Pressure Switch
B5LF	Wheel Speed Sensor - Left Front	—	At the left front wheel	• Frame and Underbody Components (1 of 2) • Front Wheel Speed Sensor Components	B5LF Wheel Speed Sensor - Left Front
B5LR	Wheel Speed Sensor - Left Rear	—	At the left rear wheel, attached to the backing plate	Frame and Underbody Components (1 of 2)	• B5LR Wheel Speed Sensor - Left Rear (R04) • B5LR Wheel Speed Sensor - Left Rear (-R04)
B5RF	Wheel Speed Sensor - Right Front	—	At the right front wheel	• Frame and Underbody Components (1 of 2) • Front Wheel Speed Sensor Components	• B5RF Wheel Speed Sensor - Right Front (LWN) • B5RF Wheel Speed Sensor - Right Front (-LWN)
B5RR	Wheel Speed Sensor - Right Rear	—	At the right rear wheel, attached to the backing plate	Frame and Underbody Components (1 of 2)	• B5RR Wheel Speed Sensor - Right Rear (R04) • B5RR Wheel Speed Sensor - Right Rear (-R04)
B9	Ambient Air Temperature Sensor	—	Attached to the front center of the radiator support	Ambient Air Temperature Sensor (UFA)	• B9 Ambient Air Temperature Sensor (UFA) • B9 Ambient Air Temperature Sensor (-UFA)
B10	Ambient Light Sensor	—	On the top of the instrument panel	Instrument Panel Components (2 of 2)	B10 Ambient Light Sensor
B12A	Transmission Fluid Pressure Switch	—	Internal to T12 Automatic Transmission Assembly	—	—
B13	Transmission Fluid Temperature Sensor	—	Internal to T12 Automatic Transmission Assembly	—	—
B14A	Transmission Output Shaft Speed Sensor	—	Internal to T12 Automatic Transmission Assembly	Automatic Transmission Internal Electrical Components	—
B14C	Transmission Input Shaft Speed Sensor	—	Internal to T12 Automatic Transmission Assembly	—	—
B14D	Transmission Intermediate Shaft Speed Sensor	—	Under the vehicle, internal to the Transmision Assembly	—	—
B15	Transmission Internal Mode Switch	—	Internal to T12 Automatic Transmission Assembly	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B18	Battery Current Sensor	—	Attached to the negative terminal of the battery	—	B18 Battery Current Sensor
B19A	Brake Booster Fluid Pressure Alarm Switch	UJ1	In the power steering inlet hose, near the power steering pump	Brake Booster Fluid Alarm Switches (UJ1)	B19A Brake Booster Fluid Pressure Alarm Switch
B20	Brake Fluid Level Switch	—	Left rear of the engine compartment, attached to the left lower side of the brake fluid reservoir	• Engine Compartment Components (1 of 2) • Upper Left Side of the Engine Components (LV1)	B20 Brake Fluid Level Switch
B22	Brake Pedal Position Sensor	—	Attached to brake pedal assembly	Instrument Panel Components (2 of 2)	B22 Brake Pedal Position Sensor
B23	Camshaft Position Sensor	—	Front of the engine between the water pump and the crank pulley	• Left Front Side of the Engine Components (LV1) • Right Front of Engine Components (LWN)	B23 Camshaft Position Sensor
B24	Mobile Telephone Microphone	UE1	In the passenger compartment, in the overhead console	—	B24 Mobile Telephone Microphone
B26	Crankshaft Position Sensor	—	Attached to the lower right rear side of the engine, behind the starter	• Left Front of the Engine Components (LWN) • Right Side of the Engine Components (L8T) (2 of 2)	B26 Crankshaft Position Sensor
B28F	Door Ajar Switch - Right Sliding	Cargo/Passenger	Mounted towards the bottom of the right rear door	• Front of the Passenger Compartment Components • Right Side Hinged Door Components (E24) • Right Sliding Door Components (YA2)	B28F Door Ajar Switch - Right Sliding
B33	Engine Coolant Level Switch	LWN	Right front of the engine compartment, attached to the bottom of the coolant surge tank	• Front of Engine Compartment Components (1 of 2) • Front of Engine Compartment Components (2 of 2)	B33 Engine Coolant Level Switch (LWN)
B34	Engine Coolant Temperature Sensor	—	Attached to the engine coolant thermostat housing	• Left Front Side of the Engine Components (LV1) • Left Side of Engine Components (LWN) • Right Front Side of the Engine Components (LV1)	• B34 Engine Coolant Temperature Sensor (LV1) • B34 Engine Coolant Temperature Sensor (LWN)

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B35	Engine Oil Level Switch	—	Attached to the left side of the oil pan	• Right Front of Engine Components (LWN) • Right Front Side of the Engine Components (LV1) • Right Side of the Engine Components (L8T) (2 of 2)	• B35 Engine Oil Level Switch (LV1) • B35 Engine Oil Level Switch (-LV1)
B36	Engine Oil Temperature Sensor	L8T	In the engine compartmnet, near the left rear of the engine block	—	B36 Engine Oil Temperature Sensor
B37B	Engine Oil Pressure Sensor	—	In engine compartment, on the rear lower left side of the engine	• Left Front Side of the Engine Components (LV1) • Right Front of Engine Components (LWN)	B37B Engine Oil Pressure Sensor
B46	Fuel Level Sensor	LV1/L96/LC8	Under the vehicle, in the fuel tank	• Frame and Underbody Components (2 of 2) • Inside of Fuel Tank Components	—
B47	Fuel Pressure Sensor	—	Under the vehicle, near the fuel tank	—	B47 Fuel Pressure Sensor
B47B	Fuel Rail Pressure Sensor	—	In the engine compartment, on top of the engine, mounted to the rear of the right fuel rail	• Right Rear of Engine Components (LWN) • Top of the Engine Components (LV1)	B47B Fuel Rail Pressure Sensor
B48	Fuel Temperature Sensor	—	Under the vehicle, near the transmission, located with the fuel filter	—	—
B52C	Heated Oxygen Sensor - Bank 1 Sensor 1	—	Attached to the left front exhaust pipe, front of the catalytic converter	• Exhaust Components (LV1) • Left Side of the Engine Components (L8T)	B52C Heated Oxygen Sensor - Bank 1 Sensor 1
B52D	Heated Oxygen Sensor - Bank 1 Sensor 2	—	Attached to the left front exhaust pipe, back of the catalytic converter	• Exhaust Components (LV1) • Left Side of the Engine Components (L8T)	B52D Heated Oxygen Sensor - Bank 1 Sensor 2
B52E	Heated Oxygen Sensor - Bank 2 Sensor 1	—	Attached to the right front exhaust pipe, front of the catalytic converter	• Exhaust Components (LV1) • Right Side of the Engine Components (L8T) (2 of 2)	B52E Heated Oxygen Sensor - Bank 2 Sensor 1
B52F	Heated Oxygen Sensor - Bank 2 Sensor 2	—	Attached to the right front exhaust pipe, rear of the catalytic converter	• Exhaust Components (LV1) • Right Side of the Engine Components (L8T) (2 of 2)	B52F Heated Oxygen Sensor - Bank 2 Sensor 2

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B55	Engine Hood Switch	BTV	In the center front of the engine compartment, attached to the hood latch assembly	—	B55 Engine Hood Switch
B59	Front Impact Sensor	—	On the lower center of the radiator support	Front of Engine Compartment Components (1 of 2)	B59 Front Impact Sensor
B63LF	Side Impact Sensor - Left Front	ASF	In the left front side door	Driver Door Components	B63LF Side Impact Sensor - Left Front
B63LR	Side Impact Sensor - Left Rear	ASF	In the left center of the vehicle behind the body panel trim	Left Rear Cargo Area Components (Passenger or Cargo)	B63LR Side Impact Sensor - Left Rear
B63RF	Side Impact Sensor - Right Front	ASF	In the right front side door	Front Passenger Door Components	—
B63RR	Side Impact Sensor - Right Rear	ASF	In the lower right side of the vehicle near the rear side door	• Right Rear Frame Rail Components (Passenger with E24) • Right Rear Frame Rail Components (Passenger with YA2)	• B63RR Side Impact Sensor - Right Rear (E24) • B63RR Side Impact Sensor - Right Rear (YA2)
B65	Intake Manifold Pressure and Air Temperature Sensor	LWN	In the engine compartment, attached to the intake manifold, on top of the engine	Top of Engine Components (LWN)	—
B68A	Knock Sensor 1	—	Mounted to the lower right side of the engine in-between the engine oil pan and the right bank exhaust manifold	• Left Side of the Engine Components (L8T) • Left Side of the Engine Components (LV1)	B68A Knock Sensor 1
B68B	Knock Sensor 2	—	Mounted to the lower left of the engine, in-between the engine oil filter and the left bank exhaust manifold	• Right Front Side of the Engine Components (LV1) • Right Side of the Engine Components (L8T) (2 of 2)	B68B Knock Sensor 2
B74	Manifold Absolute Pressure Sensor	—	In the engine compartment, attached to the intake manifold, on top of the engine	• Left Side of the Engine Components (L8T) • Upper Left Side of the Engine Components (LV1)	B74 Manifold Absolute Pressure Sensor
B75C	Multifunction Intake Air Sensor	—	Right front of the engine compartment, mounted in the air cleaner duct	• Engine Compartment Components (2 of 2) • Right Rear of Engine Components (LWN) • Upper Left Side of the Engine Components (LV1)	• B75C Multifunction Intake Air Sensor (LWN) • B75C Multifunction Intake Air Sensor (-LWN)
B80	Park Brake Switch	—	Left lower side of the instrument panel on the brake pedal assembly	Instrument Panel Components (2 of 2)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B87	Rearview Camera	UVC	On the right rear cargo door, in license plate trim	Rear Exterior Lights (Passenger or Cargo)	• B87 Rearview Camera (Cut-away) • B87 Rearview Camera (-Cut-away)
B88D	Seat Belt Switch - Driver	—	Right side of the driver seat, inside Seat Belt Buckle — Driver	—	—
B88P	Seat Belt Switch - Passenger	AK5	Left side of the front passenger seat, inside Seat Belt Buckle — Passenger	—	—
B99	Steering Wheel Angle Sensor	—	Attached the lower steering column jacket assembly	Steering Column Components (2 of 2)	—
B107	Accelerator Pedal Position Sensor	—	Left lower side of the instrument panel, above the accelerator pedal	Instrument Panel Components (2 of 2)	B107 Accelerator Pedal Position Sensor
B116	Water in Fuel Sensor	—	In the engine compartment, at the right rear of the engine, mounted in the bottom of the fuel filter	—	—
B130A	Exhaust Gas Recirculation Temperature Sensor 1	LWN	In the engine compartment, on the top left rear side of the engine	Right Rear of Engine Components (LWN)	B130A Exhaust Gas Recirculation Temperature Sensor 1
B130B	Exhaust Gas Recirculation Temperature Sensor 2	LWN	In the engine compartment, on the top right front side of the engine	Right Rear of Engine Components (LWN)	B130B Exhaust Gas Recirculation Temperature Sensor 2
B131A	Exhaust Temperature Sensor 1	LWN	In the engine compartment, attached to the exhaust pipe, on the top left rear side of the engine	Right Rear of Engine Components (LWN)	B131A Exhaust Temperature Sensor 1
B131B	Exhaust Temperature Sensor 2	LWN	Under the vehicle, attached to the exhaust pipe, near the rear of the catalytic converter	Right Rear of Engine Components (LWN)	B131B Exhaust Temperature Sensor 2
B131C	Exhaust Temperature Sensor 3	LWN	Under the vehicle, attached to the exhaust pipe, at the middle of the diesel particulate filter	—	B131C Exhaust Temperature Sensor 3
B131D	Exhaust Temperature Sensor 4	LWN	Under the vehicle, attached to the exhaust pipe, near the rear of the diesel particulate filter	—	B131D Exhaust Temperature Sensor 4
B131E	Exhaust Temperature Sensor 5	LWN	Under the vehicle, attached to the exhaust pipe, after the diesel particulate filter	—	B131E Exhaust Temperature Sensor 5
B133	Brake Booster Fluid Flow Alarm Switch	UJ1	In the power steering outlet hose, near the power steering pump	Brake Booster Fluid Alarm Switches (UJ1)	• B133 Brake Booster Fluid Flow Alarm Switch X1 • B133 Brake Booster Fluid Flow Alarm Switch X2
B134A	Coolant Heater Air Temperature Sensor	K08	Internal to E19 Coolant Heater	Coolant Heater Components (K08)	—
B134B	Coolant Heater Combustion Sensor	K08	Internal to E19 Coolant Heater	Coolant Heater Components (K08)	—
B134C	Coolant Heater Overheat Sensor	K08	Internal to E19 Coolant Heater	Coolant Heater Components (K08)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B135	Coolant Heater Temperature Sensor	K08	Internal to E19 Coolant Heater	—	—
B136	Exhaust Particulate Matter Sensor	LWN	Mounted to the exhaust, towards the rear of the engine harness	—	*B136 Exhaust Particulate Matter Sensor*
B150	Fuel Tank Pressure Sensor	L8T/LV1	Attached to the top of the fuel sender assembly	• *Fuel Tank Components (NE7)* • *Fuel Tank Components (Without NE7)*	*B150 Fuel Tank Pressure Sensor*
B153D	Seat Belt Buckle - Driver	—	Right side of the driver seat	*Driver Seat Components*	—
B153P	Seat Belt Buckle - Passenger	AK5	Left side of the front passenger seat	*Passenger Seat Components*	—
B154	Diesel Particulate Filter Exhaust Differential Pressure Sensor	LWN	Under the vehicle, near the rear of the catalytic converter	—	*B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor*
B174W	Frontview Camera - Windshield	UFL	In the passenger compartment, mounted at the top center of the windshield	—	*B174W Frontview Camera - Windshield*
B176	Multi-axis Acceleration Sensor Module	—	In the passenger compartment, on the front center on the floor board between the front seats	*Front of the Passenger Compartment Components*	*B176 Multi-axis Acceleration Sensor Module*
B193A	Charge Air Cooler Inlet Temperature Sensor	LWN	In the engine compartment, attached to the intake manifold, front of the turbocharger	*Right Rear of Engine Components (LWN)*	*B193A Charge Air Cooler Inlet Temperature Sensor*
B193B	Charge Air Cooler Outlet Temperature Sensor	LWN	On the top right front of the engine compartment, near the coolant surge tank	• *Front of Engine Compartment Components (2 of 2)* • *Left Side of Engine Components (LWN)*	*B193B Charge Air Cooler Outlet Temperature Sensor*
B194	Reductant Pressure Sensor	LWN	Under the vehicle, above the reductant tank	—	—
B195A	Nitrogen Oxides Sensor 1	LWN	Under the vehicle	*Right Rear of Engine Components (LWN)*	*B195A Nitrogen Oxides Sensor 1*
B195B	Nitrogen Oxides Sensor 2	LWN	Under the vehicle	—	*B195B Nitrogen Oxides Sensor 2*
B213	Reductant Level Sensor	LWN	Under the vehicle, toward the rear, inside the reductant fluid tank	—	—
B214	Reductant Temperature Sensor	LWN	Under the vehicle, toward the rear, inside the reductant fluid tank	—	—
B218L	Side Object Sensor Module - Left	UFT	At the rear of the vehicle, in the rear bumper, at the left corner	—	*B218L Side Object Sensor Module - Left (UFT)*
B218R	Side Object Sensor Module - Right	UFT	At the rear of the vehicle, in the rear bumper, at the right corner	—	*B218R Side Object Sensor Module - Right (UFT)*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B295	Reductant Quality Sensor	LWN	Under the vehicle, mounted to the outboard side of the frame, below the passenger side of the cab attached to the reductant fluid inlet line near the reductant pump and sensor assembly	Reductant Tank Components	—
B303	Transmission Range Sensor	—	Under the vehicle, center, within T12 Automatic Transmission Assembly	—	—
B306E	Parking Assist Sensor - Rear Left Outer	UD7	At the rear of the vehicle, housed in the rear fascia	Rear Exterior Lights (Passenger or Cargo)	B306E Parking Assist Sensor - Rear Left Outer (UD7)
B306F	Parking Assist Sensor - Rear Left Middle	UD7	At the rear of the vehicle, housed in the rear fascia	Rear Exterior Lights (Passenger or Cargo)	B306F Parking Assist Sensor - Rear Left Middle (UD7)
B306G	Parking Assist Sensor - Rear Right Middle	UD7	At the rear of the vehicle, housed in the rear fascia	Rear Exterior Lights (Passenger or Cargo)	B306G Parking Assist Sensor - Rear Right Middle (UD7)
B306H	Parking Assist Sensor - Rear Right Outer	UD7	At the rear of the vehicle, housed in the rear fascia	Rear Exterior Lights (Passenger or Cargo)	B306H Parking Assist Sensor - Rear Right Outer (UD7)
C1	Battery	—	At the right front side of the engine compartment	• Engine Compartment Components (1 of 2) • Front of Engine Compartment Components (2 of 2)	• C1 Battery ((-)) • C1 Battery ((+))
C1B	Battery - Auxiliary	LWN/TP3	Left frame rail, center of the vehicle	Frame and Underbody Components (2 of 2)	• C1B Battery - Auxiliary (LWN) • C1B Battery - Auxiliary (-LWN)
E2LF	Side Marker Lamp - Left Front	—	In the left front corner of the vehicle	Front Exterior Lighting	E2LF Side Marker Lamp - Left Front
E2RF	Side Marker Lamp - Right Front	—	In the right front corner of the vehicle	Front Exterior Lighting	E2RF Side Marker Lamp - Right Front
E4E	Headlamp - Left High Beam	V22	At the left front of the vehicle	Front Exterior Lighting	E4E Headlamp - Left High Beam
E4F	Headlamp - Right High Beam	V22	At the right front of the vehicle	Front Exterior Lighting	E4F Headlamp - Right High Beam
E4G	Headlamp - Left Low Beam	V22	At the left front of the vehicle	Front Exterior Lighting	E4G Headlamp - Left Low Beam
E4H	Headlamp - Right Low Beam	V22	At the right front of the vehicle	Front Exterior Lighting	E4H Headlamp - Right Low Beam
E4N	Park/Turn Signal Lamp - Left	—	In the left front corner of the vehicle	Front Exterior Lighting	E4N Park/Turn Signal Lamp - Left
E4P	Park/Turn Signal Lamp - Right	—	In the right front corner of the vehicle	Front Exterior Lighting	E4P Park/Turn Signal Lamp - Right
E5A	Backup Lamp - Left	—	Attached to the left tail lamp assembly	Rear Exterior Lights (Passenger or Cargo)	—
E5B	Backup Lamp - Right	—	Attached to the right tail lamp assembly	Rear Exterior Lights (Passenger or Cargo)	—
E5S	Tail/Stop and Turn Signal Lamp - Left	Passenger/Cargo	Attached to the left tail lamp assembly, upper bulb	Rear Exterior Lights (Passenger or Cargo)	—
E5T	Tail/Stop and Turn Signal Lamp - Right	Passenger/Cargo	Attached to the right tail lamp assembly, upper bulb	Rear Exterior Lights (Passenger or Cargo)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
E6	Center High Mounted Stop Lamp	Passenger/Cargo	At the top rear center of the vehicle	Rear Exterior Lights (Passenger or Cargo)	—
E7	License Plate Lamp	Passenger/Cargo	Attached to the outer right cargo door, above the license plate mount	Rear Exterior Lights (Passenger or Cargo)	E7 License Plate Lamp
E11	Fuel Heater	LWN	In the engine compartment, at the right rear of the engine, mounted in the bottom of the fuel filter	—	—
E11A	Fuel Heater/Water in Fuel Sensor	LWN	Under the vehicle, near the transmission, located with the fuel filter	—	E11A Fuel Heater/ Water in Fuel Sensor
E12A	Glow Plug 1	LWN	In the engine compartment, on the top left of the engine	Top of Engine Components (LWN)	E12A Glow Plug 1
E12B	Glow Plug 2	LWN	In the engine compartment, on the top left of the engine	Top of Engine Components (LWN)	E12B Glow Plug 2
E12C	Glow Plug 3	LWN	In the engine compartment, on the top left of the engine	Top of Engine Components (LWN)	E12C Glow Plug 3
E12D	Glow Plug 4	LWN	In the engine compartment, on the top left of the engine	Top of Engine Components (LWN)	E12D Glow Plug 4
E18L	Rear Defogger Grid - Left	C49	Attached to the left cargo door window	Rear Door Components (Passenger or Cargo)	• E18L Rear Defogger Grid - Left X1 • E18L Rear Defogger Grid - Left X2
E18R	Rear Defogger Grid - Right	C49	Attached to the right cargo door window	Rear Door Components (Passenger or Cargo)	• E18R Rear Defogger Grid - Right X1 • E18R Rear Defogger Grid - Right X2
E19	Coolant Heater	K08	Attached to the left front inner frame rail	• Coolant Heater Components (K08) • Frame and Underbody Components (2 of 2)	E19 Coolant Heater
E20	Coolant Heater Glow Plug	K08	Internal to E19 Coolant Heater	Coolant Heater Components (K08)	—
E21A	Fluorescent Work Lamp - Right Access Panel	PRP	Mounted towards the right of the top access panel	—	—
E21F	Fluorescent Work Lamp - Front Cargo	PRP	Mounted towards the top front of the cargo area	—	—
E21LF	Fluorescent Work Lamp - Left Front Access Panel	PRP	At the front and towards the top of the left access panel	—	—
E21LR	Fluorescent Work Lamp - Left Rear Access Panel	PRP	Mounted towards the top of the right access panel	—	—
E21R	Fluorescent Work Lamp - Rear Cargo	PRP	Mounted towards the top rear of the cargo area	—	—
E22	Underhood Lamp	—	In the engine compartment, attached to the left inner hood panel	Underside of Hood Components	E22 Underhood Lamp

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
E31L	Sunshade Mirror Lamp - Left	DH6	On the upper left of the headliner, inside the Sunshade — Left	Headliner Components	—
E31R	Sunshade Mirror Lamp - Right	DH6	On the upper right of the headliner, in the Sunshade — Right	Headliner Components	—
E36AC	Dome Lamp - Left Roof Rail	Cargo Without YF7	In the rear of the roof panel	—	E36AC Dome Lamp - Left Roof Rail
E36AD	Dome Lamp - Right Roof Rail	Cargo Without YF7	In the rear of the roof panel	—	E36AD Dome Lamp - Right Roof Rail
E36AH	Dome Lamp	Cargo Without YF7	In the rear of the roof panel	—	E36AH Dome Lamp
E37F	Dome/Reading Lamps - Front	Without YF7	In the front of the roof panel	Headliner Components	E37F Dome/Reading Lamps - Front
E37M	Dome/Reading Lamps - Middle	Passenger	In the center of the roof panel	Headliner Components	E37M Dome/Reading Lamps - Middle
E37R	Dome/Reading Lamps - Rear	Passenger	In the rear of the roof panel	Headliner Components	E37R Dome/Reading Lamps - Rear
E45	Positive Crankcase Ventilation Heater	LWN	In the engine compartment, attached to the top front of the engine	Right Front of Engine Components (LWN)	E45 Positive Crankcase Ventilation Heater
E52	Reductant Line Heater	LWN	Under the vehicle, above the reductant tank	Reductant Tank Components	—
E53	Reductant Tank Heater	LWN	Under the vehicle, inside the reductant tank	—	—
F101	Passenger Instrument Panel Air Bag	—	Right side of the instrument panel	• Instrument Panel Components (1 of 2) • Instrument Panel Components (2 of 2)	F101 Passenger Instrument Panel Air Bag
F105LF	Roof Rail Air Bag - Left Front	ASF	Behind the left side of the headliner trim	Front of the Passenger Compartment Components	F105LF Roof Rail Air Bag - Left Front
F105RF	Roof Rail Air Bag - Right Front	ASF	Behind the right side of the headliner trim	Front of the Passenger Compartment Components	F105RF Roof Rail Air Bag - Right Front
F105RR	Roof Rail Air Bag - Right Rear	ASF	Behind the right rear side of the headliner trim	—	F105RR Roof Rail Air Bag - Right Rear
F106D	Seat Side Air Bag - Driver	AK5	Within the driver seat back, towards the outside	—	—
F106P	Seat Side Air Bag - Passenger	AK5	Within the passenger seat back, towards the outside	—	—
F107	Steering Wheel Air Bag	—	Attached to the center of the steering wheel	• Instrument Panel Components (1 of 2) • Steering Column Components (1 of 2)	—
F109D	Seat Belt Buckle Pretensioner - Driver	—	Part of the seat belt buckle	Driver Seat Components	—
F109P	Seat Belt Buckle Pretensioner - Passenger	AK5	Part of the seat belt buckle	Passenger Seat Components	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
G7	Coolant Heater Fuel Pump	K08	Attached to the left inner frame rail, near the fuel pump assembly	• Coolant Heater Components (K08) • Frame and Underbody Components (2 of 2)	G7 Coolant Heater Fuel Pump
G12	Fuel Pump	L8T/LV1	Under the vehicle, internally attached to the middle of the fuel pump assembly	Frame and Underbody Components (2 of 2)	—
G13	Generator	—	Attached to the right front of the engine	• Left Front of the Engine Components (LWN) • Right Side of the Engine Components (L8T) (2 of 2)	• G13 Generator X1 • G13 Generator X2 (L8T+KG4) • G13 Generator X2 (L8T+KW5) • G13 Generator X2 (LV1+K68) • G13 Generator X2 (LV1+KW5) • G13 Generator X2 (LWN)
G18	High Pressure Fuel Pump	LV1	In the engine compartment, at the top rear of the engine, between the cylinder heads	Top of the Engine Components (LV1)	—
G24	Windshield Washer Pump	—	Attached to the windshield washer fluid reservoir in the right front of the engine compartment	Front of Engine Compartment Components (1 of 2)	G24 Windshield Washer Pump
G33	Reductant Pump	LWN	Under the vehicle, above the reductant tank	—	—
K9	Body Control Module	—	Lower right side of the instrument panel behind the knee bolster	Instrument Panel Components (2 of 2)	• K9 Body Control Module X1 • K9 Body Control Module X2 • K9 Body Control Module X3 • K9 Body Control Module X4 • K9 Body Control Module X5 • K9 Body Control Module X6 • K9 Body Control Module X7
K10	Coolant Heater Control Module	K08	Internal to the coolant heater assembly	Coolant Heater Components (K08)	—
K17	Electronic Brake Control Module	—	Attached to the left frame rail, near the center of the vehicle	Frame and Underbody Components (1 of 2)	K17 Electronic Brake Control Module
K18	Compass Module	U80	In the front of the headliner	Headliner Components	K18 Compass Module

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
K20	Engine Control Module	—	At the left front side of the engine compartment, near the underhood fuse block on the inner left front fender	• Engine Compartment Components (1 of 2) • Engine Compartment Components (2 of 2)	• K20 Engine Control Module X1 (L8T) • K20 Engine Control Module X1 (LV1) • K20 Engine Control Module X1 (LWN) • K20 Engine Control Module X2 (L8T) • K20 Engine Control Module X2 (LV1) • K20 Engine Control Module X2 (LWN) • K20 Engine Control Module X3 (L8T) • K20 Engine Control Module X3 (LV1) • K20 Engine Control Module X3 (LWN)
K33A	HVAC Control Module - Auxiliary	—	In the front of the headliner	—	K33A HVAC Control Module - Auxiliary
K36	Inflatable Restraint Sensing and Diagnostic Module	—	Below the driver seat under the carpet on the floor board	Front of the Passenger Compartment Components	• K36 Inflatable Restraint Sensing and Diagnostic Module X1 • K36 Inflatable Restraint Sensing and Diagnostic Module X2
K64	Content Theft Deterrent Control Module	—	In the steering column around the ignition key cylinder housing	Steering Column Components (1 of 2)	—
K71	Transmission Control Module	M5U	Internal to T12 Automatic Transmission Assembly	Engine Compartment Components (1 of 2)	K71 Transmission Control Module
K73	Telematics Communication Interface Control Module	UE1	In the passenger compartment, mounted on a bracket under driver knee bolster panel	Underside of Instrument Panel Components	• K73 Telematics Communication Interface Control Module X1 • K73 Telematics Communication Interface Control Module X2
K77	Remote Control Door Lock Receiver	ATG/UJM	Attached to the upper left side of the instrument panel carrier, above the instrument panel cluster (IPC)	Instrument Panel Components (2 of 2)	K77 Remote Control Door Lock Receiver
K111	Fuel Pump Driver Control Module	—	Under the vehicle, attached to the left frame rail, approximately midpoint of vehicle	—	K111 Fuel Pump Driver Control Module
K115	Reductant Control Module	LWN	Under the vehicle, mounted on the top of the reductant fluid tank	Reductant Tank Components	K115 Reductant Control Module

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
K182	Parking Assist Control Module	UD7	In the passenger compartment, mounted within the instrument panel on the right side if the steering column	—	• K182 Parking Assist Control Module X1 • K182 Parking Assist Control Module X2
M2A	Access Panel Unlatch Actuator - Left Front Side Front	PRP	Inside the left access panel area	—	—
M2B	Access Panel Unlatch Actuator - Left Front Side Rear	PRP	Inside the left access panel area	—	—
M2C	Access Panel Unlatch Actuator - Left Rear Side Front	PRP	Inside the left access panel area	—	—
M2D	Access Panel Unlatch Actuator - Left Rear Side Rear	PRP	Inside the left access panel area	—	—
M2E	Access Panel Unlatch Actuator - Right Side Front	PRP	Inside the right access panel area	—	—
M2F	Access Panel Unlatch Actuator - Right Side Rear	PRP	Inside the right access panel area	—	—
M6	Air Temperature Door Actuator	—	Lower right side of the instrument panel, attached to the HVAC module	HVAC Case Components	M6 Air Temperature Door Actuator
M6B	Air Temperature Door Actuator - Auxiliary	C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	Left Rear Cargo Area Components (Passenger or Cargo)	M6B Air Temperature Door Actuator - Auxiliary
M7	Transmission Shift Lock Control Solenoid Actuator	—	Attached to the right side of the steering column	Steering Column Components (1 of 2)	—
M8	Blower Motor	—	Right rear of the engine compartment, attached to the evaporator case	Engine Compartment Components (1 of 2)	—
M8B	Blower Motor - Auxiliary	C36/C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	Left Rear Cargo Area Components (Passenger or Cargo)	M8B Blower Motor - Auxiliary
M11	Coolant Heater Blower Motor	K08	Internal to the coolant heater assembly	Coolant Heater Components (K08)	—
M13	Door Latch Assembly - Rear Cargo	Passenger/Cargo	Attached to the right cargo door latch, in the right cargo door	Rear Door Components (Passenger or Cargo)	• M13 Door Latch Assembly - Rear Cargo X1 • M13 Door Latch Assembly - Rear Cargo X2
M14RR	Door Lock Actuator - Right Rear	AU3	Attached to the right rear door latch, in the right rear door	• Right Side Hinged Door Components (E24) • Right Sliding Door Components (YA2)	• M14RR Door Lock Actuator - Right Rear (E24) • M14RR Door Lock Actuator - Right Rear (YA2)

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
M37B	Mode Door Actuator - Auxiliary	C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	Left Rear Cargo Area Components (Passenger or Cargo)	M37B Mode Door Actuator - Auxiliary
M49D	Seat Motor Assembly - Driver	AG1	Below the left front seat, attached to the seat frame	Driver Seat Components	—
M49P	Seat Motor Assembly - Passenger	AG2	Below the right front seat, attached to the seat frame	Passenger Seat Components	—
M64	Starter Motor	—	Attached to the lower right rear of the engine	• Left Front of the Engine Components (LWN) • Right Front Side of the Engine Components (LV1) • Right Side of the Engine Components (L8T) (1 of 2)	• M64 Starter Motor X1 (L8T+TP3) • M64 Starter Motor X1 (L8T-TP3) • M64 Starter Motor X1 (LV1) • M64 Starter Motor X1 (LWN) • M64 Starter Motor X2
M74D	Window Motor - Driver	A31	Attached to the interior of the left front door	Driver Door Components	M74D Window Motor - Driver
M74P	Window Motor - Passenger	A31	Attached to the interior of the right front door	Front Passenger Door Components	M74P Window Motor - Passenger
M75	Windshield Wiper Motor	—	In the left side of the cowl, near the engine compartment	Front of Engine Compartment Components (1 of 2)	M75 Windshield Wiper Motor
M103	Turbocharger Vane Position Actuator	LWN	In the engine compartment, attached to the turbocharger	Right Rear of Engine Components (LWN)	M103 Turbocharger Vane Position Actuator
P3	Backup Alarm	8S3	In the rear of the vehicle on the frame	—	P3 Backup Alarm
P13	Horn Assembly	—	In the left front engine compartment behind the left headlamp	• Engine Compartment Components (2 of 2) • Front of Engine Compartment Components (1 of 2)	P13 Horn Assembly
P16	Instrument Cluster	—	Attached to the left side of the instrument panel	Instrument Panel Components (1 of 2)	P16 Instrument Cluster
P19AG	Speaker - Left Front Door	—	Attached to the left front door	Driver Door Components	P19AG Speaker - Left Front Door
P19AH	Speaker - Right Front Door	—	Attached to the right front door	Front Passenger Door Components	P19AH Speaker - Right Front Door
P19F	Speaker - Left Rear Cargo Door	US8	Attached to the left cargo door	Rear Door Components (Passenger or Cargo)	P19F Speaker - Left Rear Cargo Door
P19LR	Speaker - Left Rear Roof	Cargo/Passenger	In the left rear headliner of the vehicle	Rear Door Components (Passenger or Cargo)	P19LR Speaker - Left Rear Roof
P19RR	Speaker - Right Rear Roof	Cargo/Passenger	In the right rear upper headliner of the vehicle	Rear Door Components (Passenger or Cargo)	P19RR Speaker - Right Rear Roof
P19T	Speaker - Right Rear Cargo Door	US8	Attached to the right cargo door	Rear Door Components (Passenger or Cargo)	P19T Speaker - Right Rear Cargo Door

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
P34D	Side Object Detection Indicator - Driver	UFT	Internal to the outside rear-view mirror - driver	—	—
P34P	Side Object Detection Indicator - Passenger	UFT	Internal to the outside rear-view mirror - passenger	—	—
P43	Collision Alert Indicators	UFL	Within the instrument cluster	—	*P43 Collision Alert Indicators*
Q1A	1-2 Shift Solenoid Valve	—	Internal T12 Automatic Transmission Assembly	—	—
Q1B	2-3 Shift Solenoid Valve	—	Internal T12 Automatic Transmission Assembly	—	—
Q2	A/C Compressor Clutch	C60	On the front of the A/C compressor lower right front of engine	• *Front of Engine Compartment Components (1 of 2)* • *Left Front of the Engine Components (LWN)* • *Right Side of the Engine Components (L8T) (2 of 2)*	• *Q2 A/C Compressor Clutch (LWN)* • *Q2 A/C Compressor Clutch (-LWN)*
Q6	Camshaft Position Actuator Solenoid Valve	L8T/LV1	Front of the engine behind the center of the water pump	*Left Front Side of the Engine Components (LV1)*	—
Q8	Control Solenoid Valve Assembly	—	Internal to T12 Automatic Transmission Assembly	*Automatic Transmission Internal Electrical Components*	—
Q12	Evaporative Emission Purge Solenoid Valve	L8T/LV1	On the top of the engine, rear of the throttle body	• *Left Side of the Engine Components (L8T)* • *Upper Left Side of the Engine Components (LV1)*	*Q12 Evaporative Emission Purge Solenoid Valve*
Q13	Evaporative Emission Vent Solenoid Valve	L8T/LV1	Attached to the side of the EVAP canister, front of the fuel tank	—	*Q13 Evaporative Emission Vent Solenoid Valve*
Q14	Exhaust Gas Recirculation Valve	LWN	In the engine compartment, on the top right of the engine	*Left Front of the Engine Components (LWN)*	*Q14 Exhaust Gas Recirculation Valve*
Q17A	Fuel Injector 1	—	On the left side of the intake manifold, at the #1 cylinder intake port	• *Right Rear of Engine Components (LWN)* • *Top of the Engine Components (LV1)*	*Q17A Fuel Injector 1*
Q17B	Fuel Injector 2	—	On the right side of the intake manifold, at the #2 cylinder intake port	• *Right Rear of Engine Components (LWN)* • *Top of the Engine Components (LV1)*	*Q17B Fuel Injector 2*
Q17C	Fuel Injector 3	—	On the left side of the intake manifold, at the #3 cylinder intake port	• *Right Rear of Engine Components (LWN)* • *Top of the Engine Components (LV1)*	*Q17C Fuel Injector 3*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
Q17D	Fuel Injector 4	—	On the right side of the intake manifold, at the #4 cylinder intake port	• Right Rear of Engine Components (LWN) • Top of the Engine Components (LV1)	Q17D Fuel Injector 4
Q17E	Fuel Injector 5	L8T/LV1	On the left side of the intake manifold, at the #5 cylinder intake port	Top of the Engine Components (LV1)	—
Q17F	Fuel Injector 6	L8T/LV1	On the right side of the intake manifold, at the #6 cylinder intake port	Top of the Engine Components (LV1)	—
Q17G	Fuel Injector 7	L8T	On the left side of the intake manifold, at the #7 cylinder intake port	—	—
Q17H	Fuel Injector 8	L8T	On the right side of the intake manifold, at the #8 cylinder intake port	—	—
Q18A	Fuel Pressure Regulator 1	LWN	In the engine compartment, mounted on top of the fuel injection pump	Left Front of the Engine Components (LWN)	Q18A Fuel Pressure Regulator 1
Q18B	Fuel Pressure Regulator 2	LWN	In the engine compartment, mounted to the front of the left fuel rail	Left Front of the Engine Components (LWN)	Q18B Fuel Pressure Regulator 2
Q20	Intake Air Flow Valve	LWN	Attached to the center front of the intake manifold	—	Q20 Intake Air Flow Valve
Q27A	Pressure Control Solenoid Valve 1	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q27B	Pressure Control Solenoid Valve 2	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q27C	Pressure Control Solenoid Valve 3	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q27D	Pressure Control Solenoid Valve 4	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q27E	Pressure Control Solenoid Valve 5	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q38	Throttle Body	L8T/LV1	Attached to the center front of the intake manifold	• Left Front of the Engine Components (LWN) • Right Side of the Engine Components (L8T) (2 of 2)	Q38 Throttle Body
Q39A	Torque Converter Clutch Pressure Control Solenoid Valve	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q44	Engine Oil Pressure Control Solenoid Valve	L8T	In the engine compartment, at the front of the engine, behind the front cover	—	—
Q47	Exhaust Gas Recirculation Cooler Bypass Solenoid Valve	LWN	In the engine compartment, on the left side of the engine attached to the EGR valve	Right Front of Engine Components (LWN)	Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve
Q61	Reductant Injector	LWN	Under the vehicle, attached to the exhaust pipe, near the rear of the catalytic converter	—	Q61 Reductant Injector

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
Q67	Exhaust After-treatment Fuel Injector	LWN	In the engine compartment, on the right rear side of the engine	—	Q67 Exhaust After-treatment Fuel Injector
Q77A	Transmission Control Solenoid Valve 1	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77B	Transmission Control Solenoid Valve 2	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77C	Transmission Control Solenoid Valve 3	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77D	Transmission Control Solenoid Valve 4	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77E	Transmission Control Solenoid Valve 5	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77F	Transmission Control Solenoid Valve 6	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77G	Transmission Control Solenoid Valve 7	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77H	Transmission Control Solenoid Valve 8	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77J	Transmission Control Solenoid Valve 9	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q85	Cooling Fan Clutch	LWN	In the engine compartment, attached to the cooling fan	• Front of Engine Compartment Components (1 of 2) • Left Side of Engine Components (LWN)	—
R3	Blower Motor Resistor	—	Right rear of the engine compartment, attached to the evaporator case	Engine Compartment Components (1 of 2)	R3 Blower Motor Resistor
R3B	Blower Motor Resistor - Auxiliary	C36/C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	Left Rear Cargo Area Components (Passenger or Cargo)	R3B Blower Motor Resistor - Auxiliary
R6A	Terminating Resistor - High Speed Bus	—	In the engine compartment	—	R6A Terminating Resistor - High Speed Bus
R10	Cooling Fan Resistor	LWN	In the engine compartment	—	R10 Cooling Fan Resistor
S2	Transmission Manual Shift Switch	—	Mounted on the shift lever, extending from the right side of the steering column	—	—
S13A	Door Lock Switch - Rear Cargo	Passenger/Cargo with AU3	Attached to the right cargo door accessory mount plate	Rear Door Components (Passenger or Cargo)	S13A Door Lock Switch - Rear Cargo
S13D	Door Lock Switch - Driver	AU3	Attached to the left front door accessory mount plate	Driver Door Components	S13D Door Lock Switch - Driver

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
S13P	Door Lock Switch - Passenger	AU3	Attached to the right front door accessory mount plate	Front Passenger Door Components	S13P Door Lock Switch - Passenger
S16	Driver Information Center Switch	—	On the dash, just to the left of P16 Instrument Cluster	Instrument Panel Components (1 of 2)	S16 Driver Information Center Switch
S18	Exhaust Brake Switch	M5U	In the center of the instrument panel	—	—
S30	Headlamp Switch	—	At the left side of the instrument panel	Instrument Panel Components (1 of 2)	S30 Headlamp Switch
S33	Horn Switch	—	Inside the upper steering column, behind the inflatable restraint steering wheel module	Steering Column Components (1 of 2)	—
S34	HVAC Controls Switch Assembly	—	In the center of the instrument panel	Instrument Panel Components (1 of 2)	• S34 HVAC Controls Switch Assembly X1 • S34 HVAC Controls Switch Assembly X2 • S34 HVAC Controls Switch Assembly X3 • S34 HVAC Controls Switch Assembly X4
S34F	HVAC Controls Switch Assembly - Auxiliary Front	C36/C69	On the front of the overhead console	Headliner Components	• S34F HVAC Controls Switch Assembly - Auxiliary Front (Rear HVAC Control) • S34F HVAC Controls Switch Assembly - Auxiliary Front (-Rear HVAC Control)
S34R	HVAC Controls Switch Assembly - Auxiliary Rear	C36/C69 with Rear HVAC Controls	In the headliner, near the center of the vehicle	Headliner Components	S34R HVAC Controls Switch Assembly - Auxiliary Rear
S39	Ignition Switch	—	On the right side of the steering column	Steering Column Components (1 of 2)	—
S40	Passenger Air Bag Disable Switch	C99	In the center of the instrument panel	Instrument Panel Components (1 of 2)	S40 Passenger Air Bag Disable Switch
S51	Telematics Button Assembly	UE1	In the center of the instrument panel, just below the radio	—	S51 Telematics Button Assembly
S52	Outside Rearview Mirror Switch	DEB/DE5	Attached to the left front door accessory mount plate	Driver Door Components	S52 Outside Rearview Mirror Switch
S64D	Seat Adjuster Switch - Driver	AG1	Attached to the front panel of the driver seat	Driver Seat Components	—
S64P	Seat Adjuster Switch - Passenger	AG2	Attached to the front panel of the front passenger seat	Passenger Seat Components	—
S70L	Steering Wheel Controls Switch - Left	K34	On the left steering wheel spoke	Instrument Panel Components (1 of 2)	—
S70R	Steering Wheel Controls Switch - Right	W1Y	On the right steering wheel spoke	Instrument Panel Components (1 of 2)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
S74	Tow/Haul Mode Switch	MYD	In the center of the instrument panel	Instrument Panel Components (1 of 2)	S74 Tow/Haul Mode Switch
S75	Traction Control Switch	—	In the center of the instrument panel	Instrument Panel Components (1 of 2)	S75 Traction Control Switch
S78	Turn Signal/Multifunction Switch	—	On the left side of the steering column	• Instrument Panel Components (1 of 2) • Steering Column Components (1 of 2)	—
S79D	Window Switch - Driver	A31	Attached to the left front door accessory mount plate	Driver Door Components	S79D Window Switch - Driver
S79P	Window Switch - Passenger	A31	Attached to the right front door accessory mount plate	Front Passenger Door Components	S79P Window Switch - Passenger
S85	Auxiliary Blower Motor Switch	C36/C69	In the center of the instrument panel	Instrument Panel Components (1 of 2)	S85 Auxiliary Blower Motor Switch
S155	Lane Departure Warning Switch	—	Near the center of the instrument panel, below the radio	—	S155 Lane Departure Warning Switch
T1	Accessory DC/AC Power Inverter Module	KI4	Attached to the Instrument Panel Harness	—	T1 Accessory DC/AC Power Inverter Module
T4G	Cellular Phone, Navigation, and Digital Radio Antenna	U2K/UBS	Mounted towards the left front of the roof	—	—
T4M	Radio Antenna	—	Mounted on top of the right front fender, adjacent to the hood	Right Rear of the Engine Compartment Components	—
T4S	Wireless Communication Antenna - Bluetooth	UE1	Internal to K73 Telematics Communication Interface Control Module	—	—
T8A	Ignition Coil 1	—	On the left rocker cover center at cylinder 1	• Left Side of the Engine Components (L8T) • Upper Left Side of the Engine Components (LV1)	T8A Ignition Coil 1
T8B	Ignition Coil 2	—	On the right rocker cover center at cylinder 2	Right Side of the Engine Components (L8T) (2 of 2)	T8B Ignition Coil 2
T8C	Ignition Coil 3	—	On the left rocker cover center at cylinder 3	• Left Side of the Engine Components (L8T) • Upper Left Side of the Engine Components (LV1)	T8C Ignition Coil 3
T8D	Ignition Coil 4	—	On the right rocker cover center at cylinder 4	Right Side of the Engine Components (L8T) (2 of 2)	T8D Ignition Coil 4
T8E	Ignition Coil 5	L8T/LV1	On the left rocker cover center at cylinder 5	• Left Side of the Engine Components (L8T) • Upper Left Side of the Engine Components (LV1)	T8E Ignition Coil 5

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
T8F	Ignition Coil 6	L8T/LV1	On the right rocker cover center at cylinder 6	Right Side of the Engine Components (L8T) (2 of 2)	T8F Ignition Coil 6
T8G	Ignition Coil 7	L8T	On the left rocker cover rear at cylinder 7	Left Side of the Engine Components (L8T)	T8G Ignition Coil 7
T8H	Ignition Coil 8	L8T	On the right rocker cover rear at cylinder 8	Right Side of the Engine Components (L8T) (2 of 2)	T8H Ignition Coil 8
T12	Automatic Transmission Assembly	—	Under the vehicle attached to the rear of the engine	—	T12 Automatic Transmission Assembly
W8	Blunt Cut - Trailer Provision	—	Behind the instrument panel, near the steering column	—	—
W12	Blunt Cut - Emergency Vehicle Provision	—	Near the instrument panel	—	—
W22	Blunt Cut - Rear Speaker Provision	—	Near the instrument panel	—	—
W25	Blunt Cut - Configurable Provision	—	Near the instrument panel	—	—
X50A	Fuse Block - Underhood	—	In the engine compartment, attached to the left front fender	• Engine Compartment Components (1 of 2) • Engine Compartment Components (2 of 2) • Engine Harness Routing - Engine Compartment (LV1) (1 of 2)	Electrical Center Identification Views on page 6-18
X50B	Fuse Block - Underhood Auxiliary	—	In the engine compartment	—	Electrical Center Identification Views on page 6-18
X52A	Fuse Block - Passenger Compartment	—	Below the driver seat	Body Harness Routing - Left Front Passenger Compartment	Electrical Center Identification Views on page 6-18
X53A	Fuse Block - Rear Body	PRP	Within the cargo area	—	Electrical Center Identification Views on page 6-18
X54D	Fuse Block - Fuel Heater	LWN	Within the engine compartment	—	Electrical Center Identification Views on page 6-18
X55AF	Fuse Holder - Engine Control Module	LWN	Within the engine compartment	—	Electrical Center Identification Views on page 6-18
X55AS	Fuse Holder - Rear Body Fuse Block	LWN	Within the engine compartment	—	Electrical Center Identification Views on page 6-18
X55AT	Fuse Holder 1 - Auxiliary Battery	LWN	Within the engine compartment	—	Electrical Center Identification Views on page 6-18
X60A	Junction Block - Underhood	LWN/TP3	In the engine compartment, in-between M64 Starter Motor and X50A Fuse Block - Underhood	—	Electrical Center Identification Views on page 6-18
X80A	Accessory Power Receptacle - Center Console 1	—	In the center of the instrument panel	Instrument Panel Components (1 of 2)	X80A Accessory Power Receptacle - Center Console 1

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X80B	Accessory Power Receptacle - Center Console 2	—	In the right center of the instrument panel	Instrument Panel Components (1 of 2)	X80B Accessory Power Receptacle - Center Console 2
X81	Accessory Power Receptacle - 110V AC	KI4	Within the passenger compartment	—	• X81 Accessory Power Receptacle - 110V AC X1 • X81 Accessory Power Receptacle - 110V AC X2
X84	Data Link Connector	—	Left lower side of the instrument panel, near the park brake pedal assembly	Instrument Panel Components (1 of 2)	X84 Data Link Connector
X85	Steering Wheel Air Bag Coil	—	Inside the upper steering column	—	X85 Steering Wheel Air Bag Coil X3
X87RB	Sliding Door Jamb Contact Plate - Right Body	AU3 with E24/YA2	Attached to the right B-pillar	• Right Side Hinged Door Components (E24) • Right Sliding Door Components (YA2)	• X87RB Sliding Door Jamb Contact Plate - Right Body (Body) • X87RB Sliding Door Jamb Contact Plate - Right Body (Sliding Door)
X88	Trailer Connector	UY7	Below the rear bumper, near the center	—	• X88 Trailer Connector (NE7) • X88 Trailer Connector (-NE7)
X92	USB Receptacle	USR	Slightly below and to the right of A11 Radio	—	—
X100	Instrument Panel Harness to Engine Harness	—	Left rear of the engine compartment near the underhood fuse block and the horn	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T) • Instrument Panel Harness Routing - Engine Compartment	X100 Instrument Panel Harness to Engine Harness
X101	Engine Harness to Chassis Harness	L8T/LV1	Left rear of the engine compartment behind the underhood fuse block	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	X101 Engine Harness to Chassis Harness
X102	Chassis Harness to Fuel Tank Harness	L8T/LV1	Under the vehicle, near the fuel tank	—	X102 Chassis Harness to Fuel Tank Harness
X103	Engine Harness to Starter Jumper Harness	—	In the engine compartment, right rear of engine block, near the starter	Engine Harness Routing - Right (L8T)	X103 Engine Harness to Starter Jumper Harness
X104	Instrument Panel Harness to Air Bag Jumper Harness	—	Instrument Panel Harness to Air Bag Jumper Harness, bottom left side of the radiator support	Instrument Panel Harness Routing - Engine Compartment	X104 Instrument Panel Harness to Air Bag Jumper Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X108	Battery Cable - Positive Harness to Engine Harness	LWN	Battery cable harness to the engine harness, near the front of the engine compartment	—	X108 Battery Cable - Positive Harness to Engine Harness
X109	Engine Harness to Underhood Lamp Harness	TR9	Engine Harness to Underhood Lamp Harness, left rear of the engine compartment	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	X109 Engine Harness to Underhood Lamp Harness
X111	Engine Harness to Glow Plug Jumper Harness	LWN	In the engine compartment, on the left side of the engine toward the top	—	X111 Engine Harness to Glow Plug Jumper Harness
X112	Engine Harness to Intake Manifold Pressure and Air Temperature Sensor Jumper Harness	LWN	Fuel rail jumper harness to the engine harness, in the engine compartment, near the upper rear corner of the left valve cover	—	X112 Engine Harness to Intake Manifold Pressure and Air Temperature Sensor Jumper Harness
X116	Engine Harness to Chassis Harness	LWN	In the engine compartment	—	X116 Engine Harness to Chassis Harness
X130	Engine Harness to Camshaft Position Sensor Jumper Harness	L8T/LV1	In the engine compartment, on the left rear side of engine block	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Front (L8T) • Engine Harness Routing - Front (LV1)	X130 Engine Harness to Camshaft Position Sensor Jumper Harness
X135	Camshaft Position Sensor Jumper Harness to Engine Jumper Harness	L8T	In the engine compartment, on the left rear side of engine block	Engine Harness Routing - Front (LV1)	—
X141	Instrument Panel Harness to Brake Fluid Level Switch Harness	UJ1	Instrument panel harness to the brake fluid alarm switch jumper harness, left rear of the engine compartment near the cowl	• Brake Booster Fluid Alarm Switches (UJ1) • Instrument Panel Harness Routing - Engine Compartment	X141 Instrument Panel Harness to Brake Fluid Level Switch Harness
X142	Engine Harness to Cooling Fan Clutch Jumper Harness	LWN	Engine chassis harness to the fan jumper harness, near the front of the engine	Front of Engine Compartment Components (2 of 2)	X142 Engine Harness to Cooling Fan Clutch Jumper Harness
X150	Instrument Panel Harness to Forward Lamp Harness	—	Instrument panel harness to the forward lamp harness, near the upper radiator hose at the radiator entry point	• Forward Lamp Harness Routing • Instrument Panel Harness Routing - Engine Compartment	X150 Instrument Panel Harness to Forward Lamp Harness
X155	Engine Harness to Engine Oil Pressure Sensor Jumper Harness	L8T/LV1	Engine Harness to Engine Oil Pressure Sensor Jumper Harness, in the engine compartment, left front of the engine, near the power steering pump	Engine Harness Routing - Front (L8T)	X155 Engine Harness to Engine Oil Pressure Sensor Jumper Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X160	Engine Harness to Fuel Injector Harness	L8T/LV1	In the engine compartment, rear of the engine near the top center	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Rear (L8T) • Fuel Injector Harness Routing (LV1)	• X160 Engine Harness to Fuel Injector Harness (L8T) • X160 Engine Harness to Fuel Injector Harness (LV1)
X161	Engine Harness to Fuel Injector Harness	L8T/LV1	In the engine compartment, rear of the engine near the top right	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Rear (L8T) • Fuel Injector Harness Routing (LV1)	• X161 Engine Harness to Fuel Injector Harness (L8T) • X161 Engine Harness to Fuel Injector Harness (LV1)
X175	Engine Harness to Transmission Jumper Harness	M5U	Engine harness to the transmission jumper harness	—	X175 Engine Harness to Transmission Jumper Harness
X176	Transmission Harness to Transmission Harness	M5U/MQD	Internal to the transmission	—	—
X178	Transmission Harness to Transmission Output Speed Sensor Jumper Harness	M5U/MQD	Transmission harness to the transmission speed sensor harness	—	—
X185	Instrument Panel Harness to Chassis Harness	—	In the engine compartment, near the X50A fuse block - underhood	—	X185 Instrument Panel Harness to Chassis Harness
X190	Accessory Harness to Accessory Power Fuse Block Rear Extension Harness	—	In the engine compartment	—	X190 Accessory Harness to Accessory Power Fuse Block Rear Extension Harness
X200	Steering Wheel Harness to Instrument Panel Harness	—	Steering column harness to the instrument panel harness, at the base of the steering column	• Instrument Panel Harness Routing - Dash Area (1 of 2) • Steering Column Harness Routing	X200 Steering Wheel Harness to Instrument Panel Harness
X202	Instrument Panel Harness to Engine Harness	—	Instrument panel harness to engine harness, about 8.8 inches (225 mm) from I/P underhood break out after pass through grommet	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	X202 Instrument Panel Harness to Engine Harness
X204	Body Harness to Headliner Harness	—	Body harness to headliner harness,	• Body Harness Routing - Right Front of Passenger Compartment (1 of 2) • Body Harness Routing - Right Front of Passenger Compartment (2 of 2)	X204 Body Harness to Headliner Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X205	Headliner Harness to Body Harness	—	Front headliner harness to the body harness, behind the A-pillar	• Body Harness Routing - Right Front of Passenger Compartment (1 of 2) • Body Harness Routing - Right Front of Passenger Compartment (2 of 2) • Body Harness Routing - Roof Area	X205 Headliner Harness to Body Harness
X206	Instrument Panel Harness to Instrument Panel Harness	—	Instrument Panel Harness to Instrument Panel Harness, left side of the instrument panel near the headlamp switch	—	X206 Instrument Panel Harness to Instrument Panel Harness
X220	Instrument Panel Harness to Park Brake Switch Jumper Harness	—	Instrument panel harness to the parking brake jumper harness, left side of the instrument panel, center of the parking brake pedal assembly	—	X220 Instrument Panel Harness to Park Brake Switch Jumper Harness
X225	Accelerator Pedal Position Sensor Harness to Instrument Panel Harness	—	Accelerator Pedal Position (APP) Jumper Harness to Instrument Panel Harness, located between Accelerator Pedal Position (APP) sensor and Instrument Panel Harness	—	X225 Accelerator Pedal Position Sensor Harness to Instrument Panel Harness
X289	Side Access Panel Harness to Instrument Panel Harness	PRP	Inside the vehicle, towards the left front	—	—
X290	Instrument Panel Harness to Side Access Panel Harness	PRP	Inside the vehicle, towards the left front	—	—
X291	Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness	—	In the engine compartment	—	X291 Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness
X306	Body Harness to Passenger Seat Harness	—	Body harness to the front passenger seat harness, right side of the passenger compartment below the passenger seat	• Body Harness Routing - Right Front of Passenger Compartment (1 of 2) • Body Harness Routing - Right Front of Passenger Compartment (2 of 2) • Driver Seat Harness Routing and Front Passenger Seat Harness Routing • Passenger Seat Components	X306 Body Harness to Passenger Seat Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X307	Body Harness to Driver Seat Harness	—	Body harness to the driver seat harness, left side of the passenger compartment below the driver seat	• Body Harness Routing - Left Front Passenger Compartment • Driver Seat Components • Driver Seat Harness Routing and Front Passenger Seat Harness Routing	X307 Body Harness to Driver Seat Harness
X318	Instrument Panel Harness to Body Harness	—	Instrument panel harness to the body harness, behind the left kick panel	• Body Harness Routing - Left Front Passenger Compartment • Instrument Panel Harness Routing - Dash Area (1 of 2)	X318 Instrument Panel Harness to Body Harness
X319	Auxiliary Heater Front Harness to Body Harness	ENC/C69/C36	Rear heater switch harness to the body harness, behind the left kick panel	Body Harness Routing - Left Front Passenger Compartment	X319 Auxiliary Heater Front Harness to Body Harness
X320	Upfitter Jumper Harness to Body Harness	YF2	Upfitter harness to the body harness, left side of the passenger compartment lower left C-pillar	—	—
X323	Air Bag Jumper Harness to Body Harness	ASF	At the base of the left C-pillar	Body Harness Routing - Left Front Passenger Compartment	X323 Air Bag Jumper Harness to Body Harness
X324	Air Bag Jumper Harness to Body Harness	ASF	At the base of the right C-pillar	Body Harness Routing - Right C-Pillar	X324 Air Bag Jumper Harness to Body Harness
X329	Instrument Panel Harness to Body Harness	UVC	Instrument panel harness to the body harness, in the passenger compartment under the driver seat	Body Harness Routing - Left Front Passenger Compartment	X329 Instrument Panel Harness to Body Harness
X330	Instrument Panel Harness to Body Harness	—	Instrument panel harness to the body harness, under the driver seat	• Body Harness Routing - Left Front Passenger Compartment • Instrument Panel Harness Routing - Dash Area (1 of 2)	X330 Instrument Panel Harness to Body Harness
X331	Instrument Panel Harness to Body Harness	—	Instrument panel harness to the body harness, under the driver seat	• Body Harness Routing - Left Front Passenger Compartment • Instrument Panel Harness Routing - Dash Area (1 of 2)	X331 Instrument Panel Harness to Body Harness
X390	Chassis Harness to Fuel Operated Heater Jumper Harness	-K08	Under the vehicle, along the left inner frame rail, near the fuel pump assembly	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X400	Right Rear Cargo Door Harness to Body Harness	Passenger/Cargo	Right cargo door harness to the body harness, right rear of the passenger compartment center of the right D-pillar	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2) • Rear Cargo Doors Harness Routing (Passenger or Cargo)	X400 Right Rear Cargo Door Harness to Body Harness
X403	Rear Cargo Door Harness to Body Harness	UVC	Rear cargo door harness to body harness,	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	• X403 Rearview Camera Harness to Body Harness (Cutaway) • X403 Right Rear Cargo Door Harness to Body Harness (-Cutaway)
X405	Chassis Harness to Chassis Harness	Cutaway	Cutaway rear lighting connector to the chassis harness, left rear frame rail	—	X405 Chassis Harness to Chassis Harness
X407	Auxiliary HVAC Harness to Body Harness	C36/C69	Rear HVAC harness to the body harness, left rear of the passenger compartment upper back side of the auxiliary HVAC module at the D-pillar	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2)	X407 Auxiliary HVAC Harness to Body Harness
X408	Rear Fascia Harness to Chassis Harness	UD7/UFT	Rear bumper harness to chassis harness,	Rear Bumper Harness Routing	X408 Rear Fascia Harness to Chassis Harness
X409	Auxiliary HVAC Harness to Body Harness	C36/C69	Rear HVAC harness to body harness, left rear of the passenger compartment upper back side of the auxiliary HVAC module	Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo)	X409 Auxiliary HVAC Harness to Body Harness
X410	Tail Lamp Assembly - Left Harness to Body Harness	Passenger/Cargo	Left Tail Lamp Assembly Harness to Body Harness, left rear of the passenger compartment at the D-pillar	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2)	X410 Tail Lamp Assembly - Left Harness to Body Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X411	Left Rear Cargo Door Harness to Body Harness	Passenger/Cargo	Left cargo door harness to the body harness, left rear of the passenger compartment center of the left D-pillar	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Rear Cargo Doors Harness Routing (Passenger or Cargo)	X411 Left Rear Cargo Door Harness to Body Harness
X412	Right Rear Cargo Door Harness to Body Harness	Passenger/Cargo	Right cargo door harness to the body harness, right rear of the passenger compartment center of the right D-pillar	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2) • Rear Cargo Doors Harness Routing (Passenger or Cargo)	X412 Right Rear Cargo Door Harness to Body Harness
X415	Rear Speaker Harness to Body Harness	Passenger/Cargo	Rear overhead speakers jumper harness to the body harness, rear of the passenger compartment center of the rear roof rail	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	X415 Rear Speaker Harness to Body Harness
X419	Center High Mounted Stop Lamp Jumper Harness to Body Harness	Passenger/Cargo	CHMSL harness to the body harness, rear of the passenger compartment center of the rear roof rail	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2)	X419 Center High Mounted Stop Lamp Jumper Harness to Body Harness
X420	Tail Lamp Assembly - Right Harness to Body Harness	Passenger/Cargo	Right Tail Lamp Assembly Harness to Body Harness, right rear of the passenger compartment at the D-pillar	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2) • Body Harness Routing - Roof Area	X420 Tail Lamp Assembly - Right Harness to Body Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X421	Headliner Harness to Body Harness	—	Body harness to rear headliner harness	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Roof Area	X421 Headliner Harness to Body Harness
X460	Chassis Harness to Chassis Harness	Cutaway with UY7 and NE7	Trailer Provision to Chassis Harness, in rear near Trailer Harness	—	X460 Chassis Harness to Chassis Harness
X500	Driver Door Harness to Body Harness	—	Driver door harness to the body harness, behind the left kick panel	Body Harness Routing - Left Front Passenger Compartment	X500 Driver Door Harness to Body Harness
X501	Air Bag Jumper Harness to Driver Door Harness	ASF	Driver side impact sensor harness to the driver door harness, in the driver door behind the trim panel	—	X501 Air Bag Jumper Harness to Driver Door Harness
X600	Passenger Door Harness to Body Harness	—	Passenger door harness to the body harness, behind the right kick panel	• Body Harness Routing - Right Front of Passenger Compartment (1 of 2) • Body Harness Routing - Right Front of Passenger Compartment (2 of 2)	X600 Passenger Door Harness to Body Harness
X601	Side Impact Sensor - Right Front Jumper Harness to Passenger Door Harness	ASF	Passenger side impact sensor harness to the passenger door harness, in the passenger door behind the trim panel	—	X601 Side Impact Sensor - Right Front Jumper Harness to Passenger Door Harness
X901	Rear Window Defogger Harness to Left Rear Cargo Door Harness	C49	Rear window defogger jumper harness to the left cargo door harness, in the left cargo door	Rear Cargo Doors Harness Routing (Passenger or Cargo)	X901 Rear Window Defogger Harness to Left Rear Cargo Door Harness
X902	Rear Window Defogger Harness to Right Rear Cargo Door Harness	C49	Rear window defogger jumper harness to the right cargo door harness, in the right cargo door	Rear Cargo Doors Harness Routing (Passenger or Cargo)	X902 Rear Window Defogger Harness to Right Rear Cargo Door Harness
G100	Forward Lamp Harness	—	Left front of the engine compartment, attached to the front of the left fender	G100 and G101	—
G101	Forward Lamp Harness	—	Right front of the engine compartment, attached near the front of the right fender	G100 and G101	—
G102	Engine Harness	—	Rear of the engine compartment, left rear of the engine on the left cylinder head	G102, G103, and G108 (L8T)	—
G103	Engine Harness	—	Rear of the engine compartment, left rear of the engine on the left cylinder head	G102, G103, and G108 (L8T)	—
G104	Negative Battery Cable	—	Mounted on the engine, extending towards the battery	G104 (L8T)	—
G105	Negative Battery Cable	—	Front of the engine compartment, right front of the inner frame rail	G105 and G106 (L8T)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
G106	Negative Battery Cable	—	Front of the engine compartment, right front fender	G105 and G106 (L8T)	—
G107	Engine Harness	LV1	Rear of the engine compartment, left rear of the engine on the left cylinder head	G107 and G108 (LV1)	—
G108	Engine Harness	L8T/LV1	Rear of the engine compartment, towards top of the engine	• G102, G103, and G108 (L8T) • G107 and G108 (LV1)	—
G300	Chassis Harness	—	Left side outer frame, near the EBCM	G300, G400, G404 and G405	—
G301	Instrument Panel	—	Left front of the passenger compartment, behind the kick panel next to G302	—	—
G302	Instrument Panel	—	Left front of the passenger compartment, behind the kick panel next to G301	G302 and G347	—
G304	Instrument Panel	—	Right front of the passenger compartment, behind the kick panel	G304	—
G305	Auxiliary Battery Negative Cable	LWN/TP3	Left center outer frame rail, near the auxiliary battery	• Frame and Underbody Components (2 of 2) • G305	—
G347	Body Harness	—	Left side of the passenger compartment, lower left B-pillar part of JX347	G302 and G347	—
G348	Body Harness	—	Right side of the passenger compartment, lower right B-pillar part of JX348	—	—
G400	Chassis Harness	LWN	Left rear inner side frame rail	G300, G400, G404 and G405	—
G401	Body Harness	Passenger/Cargo	Right rear of the passenger compartment, upper right D-pillar	G401 and G402 (Passenger or Cargo)	—
G402	Body Harness	Passenger/Cargo	Left rear of the passenger compartment, center left D-pillar	G401 and G402 (Passenger or Cargo)	—
G403	Side Access Panel Harness	PRP	Left rear of the passenger compartment, center left D-pillar	—	—
G404	Chassis Harness	—	In vehicle underbody, near center, on left frame rail	G300, G400, G404 and G405	—
G405	Chassis Harness	LWN	In vehicle underbody, near center, on left frame rail	G300, G400, G404 and G405	—
J100	Forward Lamp Harness	—	At the left front of the engine compartment, just behind the left front headlamp assembly	—	—
J101	Engine Harness	—	In the engine harness, on the right side of the engine, approximately 5 cm (2 in) from the MAP sensor breakout	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J102	Engine Harness	—	In the engine harness, on the right side of the engine, approximately 6 cm (2 in) from the MAP sensor breakout	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Rear (L8T)	—
J105	Fuse Block Jumper Harness	9L7	In the fuse block jumper harness, between KR81 Auxiliary Battery Relay 1 and X50B Fuse Block – Underhood Auxiliary	—	—
J106	Fuse Block Jumper Harness	9L7	In the fuse block jumper harness	—	—
J107	Engine Harness	L8T/LV1	In the engine harness, approximately 11.5 cm (4.53 in) from the horn assembly breakout	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J108	Engine Harness	L8T	In the engine harness, approximately 10.5 cm (4.0 in) from the engine control module breakout	Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J109	Engine Harness	L8T/LV1	In the engine harness, approximately 5.0 cm (2.0 in) from the engine control module breakout	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J110	Forward Lamp Harness	—	In the forward lamp harness, Left front of the vehicle, approximately 12 cm (5 in) from the left headlamp connector breakout	Forward Lamp Harness Routing	—
J111	Engine Harness	L8T	In the engine harness, approximately 5.0 cm (2.0 in) from the brake fluid level switch breakout	Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J112	Engine Harness	L8T/LV1	In the engine harness, approximately 33.5 cm (13.2 in) from the multifunction intake air sensor breakout	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J115	Engine Harness	—	In the engine harness, in the right front of the engine compartment, approximately 15 cm (6 in) from the X101 breakout	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J119	Chassis Harness	K08	In the chassis harness, near the left front inner frame rail, approximately 15 cm (6 in) from the coolant heater breakout	—	—
J121	Forward Lamp Harness	—	In the forward lamp harness, near the front center of the vehicle, approximately 48 cm (19 in) from the left headlamp breakout	*Forward Lamp Harness Routing*	—
J122	Forward Lamp Harness	—	In the forward lamp harness, near the left front of the vehicle, approximately 12 cm (5 in) from the underhood fuse block X4 breakout	*Forward Lamp Harness Routing*	—
J123	Engine Harness	L8T	In the engine harness, near the left front side of the vehicle, approximately 16 cm (6 in) from the underhood fuse block X1 breakout	*Engine Harness Routing - Rear (L8T)*	—
J125	Engine Harness	LWN	In the engine harness, approximately 24.5 cm (9.6 in) from the cooling fan resistor breakout	—	—
J126	Engine Harness	LWN	In the engine harness, approximately 25.5 cm (10 in) from the horn assembly breakout	—	—
J127	Engine Harness	LWN	In the engine harness, approximately 12.0 cm (4.7 in) from the brake fluid level switch breakout	—	—
J128	Engine Harness	LWN	In the engine harness, approximately 14.5 cm (5.7 in) from the fuse block – fuel heater breakout	—	—
J130	Engine Harness	L8T/LV1	In the engine harness, approximately 12.5 cm (4.9 in) from the knock sensor 1 breakout	*Engine Harness Routing - Front (L8T)*	—
J131	Engine Harness	L8T/LV1	In the engine harness, approximately 19.5 cm (7.7 in) from the knock sensor 1 breakout	*Engine Harness Routing - Front (L8T)*	—
J135	Engine Harness	LWN	In the engine harness, approximately 24.5 cm (9.6 in) from the fuse block – fuel heater breakout	—	—
J143	Engine Harness	L8T/LV1	Adjacent to B52C Heated Oxygen Sensor - Bank 1 Sensor 1 and B52E Heated Oxygen Sensor - Bank 2 Sensor 1	• *Engine Harness Routing - Engine Compartment (LV1) (1 of 2)* • *Engine Harness Routing - Rear (L8T)*	—
J144	Engine Harness	L8T/LV1	Adjacent to B52D Heated Oxygen Sensor - Bank 1 Sensor 2 and B52F Heated Oxygen Sensor - Bank 2 Sensor 2	*Engine Harness Routing - Engine Compartment (LV1) (1 of 2)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J170	Engine Harness	LV1	In the engine harness, approximately 24.5 cm (9.6 in) from ignition coil 5	Engine Harness Routing - Engine Compartment (LV1) (1 of 2)	—
J171	Engine Harness	LV1	In the engine harness, approximately 26 cm (10.2 in) from ignition coil 6	Engine Harness Routing - Engine Compartment (LV1) (1 of 2)	—
J175	Transmission Internal Harness	M5U	Within the automatic transmission assembly	—	—
J176	Transmission Internal Harness	M5U	Within the automatic transmission assembly	—	—
J177	Transmission Internal Harness	M5U	Within the automatic transmission assembly	—	—
J181	Ignition Coil Jumper Harness	L8T	In the ignition coil jumper harness for bank 1, approximately 5 cm (2.0 in) from the X126 breakout	Engine Harness Routing - Rear (L8T)	—
J182	Left Ignition Coil Harness	L8T/LV1	In the odd ignition/coil module jumper harness, top left of the engine	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J183	Right Ignition Coil Harness	L8T	In the even ignition/coil module jumper harness, top right of the engine	Engine Harness Routing - Rear (L8T)	—
J184	Left Ignition Coil Harness	LV1	In the odd ignition/coil module jumper harness, top left of the engine	Engine Harness Routing - Engine Compartment (LV1) (2 of 2)	—
J185	Right Ignition Coil Harness	LV1	In the even ignition/coil module jumper harness, top right of the engine	Engine Harness Routing - Engine Compartment (LV1) (2 of 2)	—
J188	Right Ignition Coil Harness	L8T/LV1	In the even ignition/coil module jumper harness, top right of the engine	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J201	Instrument Panel	UFL	In the instrument panel harness, approximately 2 cm (0.79 in) from the park brake switch breakout	—	—
J202	Steering Column Harness	—	In the steering column harness, approximately 25 cm (9 in) from the X200 connector	—	—
J203	Steering Column Harness	—	In the steering column harness, approximately 27 cm (10.5 in) from the X200 connector	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J205	Steering Column Harness	—	In the steering column harness, approximately 30 cm (12 in) from the X200 connector	—	—
J207	Instrument Panel	—	In the instrument panel harness, center of the instrument panel, approximately 70 cm (27 in) from the radio and HVAC control assembly breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J208	Steering Wheel Harness	K34 with W1Y	In the steering wheel harness, near the X200 connector	—	—
J209	Steering Wheel Harness	K34 with W1Y	In the steering wheel harness, near the X200 connector	—	—
J210	Steering Wheel Harness	K34/W1Y	In the steering wheel harness, near the X200 connector	—	—
J211	Instrument Panel	UD7/UFT	In the engine compartment, approximately 30 cm (11.8 in) from the windshield washer pump	—	—
J223	Instrument Panel	UVC	Adjacent to K9 Body Control Module	—	—
J241	Instrument Panel	—	In the instrument panel harness, center of the instrument panel, approximately 13.5 cm (5.3 in) from the parking assist control module breakout	—	—
J244	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 12 cm (5 in) from the X200 breakout towards the instrument panel cluster connector	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J245	Instrument Panel	DEB/DE5	In the instrument panel harness, center of the instrument panel, approximately 30 cm (12 in) from the radio and HVAC control assembly breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J246	Instrument Panel	DEB/DE5	In the instrument panel harness, center of the instrument panel, approximately 43.5 cm (17 in) from the radio and HVAC control assembly breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J247	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 36 cm (14.37 in) from the C200 breakout towards the underhood fuse block	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J248	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 8 cm (3.14 in) from the C200 breakout towards the instrument panel cluster connector	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J249	Instrument Panel	—	In the instrument panel harness, right side of the instrument panel, approximately 21 cm (8 in) from the G304 breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J250	Instrument Panel	—	In the instrument panel harness, right side of the instrument panel, approximately 5 cm (2.16 in) from the air temperature actuator connector breakout towards the inflatable restraint instrument panel module connector	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J263	Instrument Panel	TP3	In the instrument panel harness, left side of the instrument panel, approximately 36 cm (14.37 in) from the C200 breakout towards the underhood fuse block	—	—
J264	Steering Column Harness	—	In the steering wheel harness, approximately 20 cm (8 in) from the X200 connector	—	—
J270	Instrument Panel	U2K/UBS	In the instrument panel harness, approximately 15 cm (6 in) from the digital radio receiver and cigar lighter connectors breakout	—	—
J271	Instrument Panel	U2K/UBS/UE1	In the instrument panel harness, approximately 7.5 cm (3 in) from the vehicle communication interface module and cigar lighter connectors breakout	—	—
J280	Instrument Panel	Cutaway without YF7	In the instrument panel harness, approximately 20 cm (7.9 in) from the body fuse block and air bag module connectors breakout	—	—
J300	Side Access Panel Harness	PRP	Slightly forward of X53A Fuse Block - Rear Body	—	—
J302	Instrument Panel	PRP	Adjacent to K9 Body Control Module	—	—
J307	Front Headliner Harness	C69 with YF7	In the front headliner harness, center of the headliner, approximately 15 cm (6 in) from the X205 breakout towards the left vanity mirror lamp connector	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J308	Body Harness	C69	In the body harness, left side of the passenger compartment, approximately 22 cm (9 in) from the breakout for the door jamb switch LR side	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J309	Side Access Panel Harness	PRP	Adjacent to X53A Fuse Block - Rear Body	—	—
J310	Body Harness	C69	In the body harness, left side of the passenger compartment, approximately 32 cm (12.79 in) from the breakout for the door jamb switch left rear side	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J311	Body Harness	C69	In the body harness, left side of the passenger compartment, approximately 5 cm (2 in) from the door jamb switch LR side breakout	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J314	Front Headliner Harness	—	In the front headliner harness, center of the headliner, approximately 22 cm (8.5 in) from the X205 breakout towards the left vanity mirror lamp connector	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J315	Chassis Harness	—	In the chassis harness, left side frame, approximately 31 cm (12 in) from the G300 breakout	—	—
J322	Body Harness	Cargo/Passenger with AU3	In the body harness, near the front passenger seat, approximately 40 cm (16 in) from the X306 breakout	—	—
J323	Body Harness	Cargo/Passenger with AU3	In the body harness, near the front passenger seat, approximately 20 cm (8 in) from the X306 breakout	—	—
J330	Rear Headliner Harness	Passenger	In the rear headliner harness, center of the headliner, approximately 30 cm (12 in) to the courtesy reading lamp rear breakout	—	—
J331	Body Harness	Passenger	In the body harness, near the front passenger seat, approximately 15 cm (6 in) from the X306 breakout	*Body Harness Routing - Rear Overview (Passenger or Cargo)*	—
J332	Front Headliner Harness	DH6 with YF7	In the front headliner harness, center of the headliner, approximately 11 cm (4 in) from the front right sunshade breakout	—	—
J333	Front Headliner Harness	DH6 without YF7	In the front headliner harness, center of the headliner, approximately 20 cm (8 in) from the right sunshade breakout	—	—
J334	Body Harness	UVC	Approximately 5 inches rearward of X53A Fuse Block - Rear Body	• *Body Harness Routing - Left Front Passenger Compartment* • *Body Harness Routing - Right Front of Passenger Compartment (1 of 2)*	—
J348	Side Access Panel Harness	PRP	In the cargo area, in-between the headliner and the roof, in-between the left side access panel and the right side access panel	—	—
J350	Side Access Panel Harness	PRP with UF2	In the cargo area, in-between the headliner and the roof, in-between the left side access panel and the right side access panel	—	—
J355	Front Headliner Harness	C69 with YF7	In the front headliner harness, center of the headliner, approximately 61 cm (24 in) from the X205 breakout towards the left vanity mirror lamp connector	*Body Harness Routing - Rear Overview (Passenger or Cargo)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J356	Body Harness	—	In the body harness, on the left front side of the vehicle, approximately 20 cm (7.87 in) from the underhood fuse block breakout	• Body Harness Routing - Left Front Passenger Compartment • Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Front of Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J357	Body Harness	—	In the body harness, approximately 9.0 cm (3.54 in) from the breakout for X307	Body Harness Routing - Rear Overview (Passenger or Cargo)	—
J359	Body Harness	U80	In the body harness, approximately 20.0 cm (7.9 in) from the multi-axis acceleration sensor module breakout	Body Harness Routing - Rear Overview (Passenger or Cargo)	—
J373	Body Harness	Passenger	At the base of the right C-pillar	Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J374	Body Harness	Cargo without YF7	In the body harness, approximately 20 cm (7.9 in) from the dome lamp – left roof rail breakout	—	—
J375	Body Harness	Cargo without YF7	In the body harness, approximately 20 cm (7.9 in) from the dome lamp – right roof rail breakout	Body Harness Routing - Right Front of Passenger Compartment (2 of 2)	—
J376	Body Harness	Cargo/Passenger	In the body harness, approximately 72.5 cm (28.5 in) from the X410 breakout	• Body Harness Routing - Right Front of Passenger Compartment (2 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J377	Side Access Panel Harness	PRP	Adjacent to X53A	—	—
J378	Side Access Panel Harness	PRP	Adjacent to X53A	—	—
J387	Chassis Harness	Cutaway	In the chassis harness, approximately 6 cm (2.36 in) from the trailer connector breakout	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J388	Chassis Harness	Cutaway	In the chassis harness, approximately 10 cm (3.94 in) from the trailer connector breakout	—	—
J401	Body Harness	C36/C49/C69	In the body harness, in the left rear of the vehicle, approximately 21 cm (8 in) from the X401 breakout	• *Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo)* • *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)*	—
J402	Chassis Harness	—	In the chassis harness, left frame, approximately 20 cm (7.87 in) from the G400 breakout towards the EBCM connector	—	—
J403	Body Harness	Cargo/Passenger	In the body harness, left rear of the passenger compartment, approximately 18.5 cm (7 in) from the X402 breakout	• *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J404	Chassis Harness	—	In the chassis harness, left frame, approximately 10 cm (4 in) from the G400 breakout towards the EBCM connector	—	—
J405	Rear HVAC Harness	C36/C69	In the rear HVAC harness, left rear of the passenger compartment, approximately 13 cm (5.31 in) from the auxiliary blower motor relay breakout towards X409	—	—
J406	Chassis Harness	LWN	Within the chassis harness	—	—
J407	Rear Headliner Harness	Passenger	In the rear headliner harness, center of the headliner, approximately 6.5 cm (2.5 in) from X304 towards the rear courtesy/reading lamp connector	—	—
J408	Side Access Panel Harness	PRP	In the Left Side Access Panel compartment	—	—
J409	Side Access Panel Harness	PRP	In the Right Side Access Panel compartment	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J410	Body Harness	Cargo/Passenger	In the body harness, in the left rear of the vehicle, approximately 47 cm (18 in) from the X401 breakout	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Front of Passenger Compartment (2 of 2) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J411	Rear HVAC Harness	C69	In the rear HVAC harness, left rear of the passenger compartment, approximately 20 cm (8 in) from the blower motor relay breakout, towards X409	—	—
J412	Rear HVAC Harness	C36/C69	In the rear HVAC harness, left rear of the passenger compartment, approximately 7 cm (2.8 in) from the blower motor relay breakout towards X409	—	—
J413	Rear HVAC Harness	C36/C70	In the rear HVAC harness, left rear of the passenger compartment, approximately 10 cm (4 in) from the auxiliary blower motor resistor assembly breakout	—	—
J420	Rear Bumper Harness	UD7	In the rear bumper harness, approximately 57 cm (22 in) from the right rear middle object alarm sensor towards the left rear corner object alarm sensor	—	—
J421	Rear Bumper Harness	UD7	In the rear bumper harness, approximately 15 cm (6 in) from the left rear corner object alarm sensor towards the right rear middle object alarm sensor	—	—
J422	Chassis Harness	LWN	In the chassis harness, approximately 11.5 cm (4.5 in) from the wheel speed sensor - left front breakout	—	—
J425	Parking Aid Jumper Harness	UFT	At the rear of the vehicle	Rear Bumper Harness Routing	—
J426	Parking Aid Jumper Harness	UFT	At the rear of the vehicle	Rear Bumper Harness Routing	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J450	Body Harness	—	In the body harness, in the rear of the vehicle, approximately 10 cm (3.93 in) from the X415 breakout	• Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J451	Body Harness	—	In the body harness, in the rear of the vehicle, approximately 17 cm (6.5 in) from the X415 breakout	• Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J452	Body Harness	—	In the body harness, approximately 17 cm (6.5 in) from the X419 breakout	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J453	Body Harness	—	In the body harness, in the left rear of the vehicle, approximately 10 cm (4 in) from the X419 breakout	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J500	Driver Door Harness	AU3/DEB/DE5/A31	In the left front door harness, driver door, approximately 7 cm (3 in) from the left front door speaker breakout	—	—
J501	Driver Door Harness	AU3	In the left front door harness, driver door, approximately 6 cm (2.36 in) from the driver outside rearview mirror breakout	—	—
J502	Driver Door Harness	DEB/DE5	In the left front door harness, driver door, approximately 4 cm (2 in) from the left front door speaker breakout	—	—
J600	Passenger Door Harness	AU3/DEB/DE5/A31	In the right front door harness, front passenger door, approximately 4 cm (2 in) from the passenger outside rearview mirror breakout	—	—
J601	Passenger Door Harness	AU3	In the right front door harness, front passenger door, approximately 5 cm (2 in) from the passenger outside rearview mirror breakout	—	—
J901	Right Rear Cargo Door Harness	Cargo/Passenger with AU3	In the rear cargo door harness, approximately 4 cm (1.5 in) from the X902 breakout	—	—
J902	Right Rear Cargo Door Harness	Cargo/Passenger with C49	In the right rear door harness, right rear cargo door, approximately 12 cm (4.7 in) from the X902 breakout	Rear Cargo Doors Harness Routing (Passenger or Cargo)	—
JX200	Instrument Panel Harness	—	In the instrument panel harness, left front side of the floor, where the carpet ends behind the brake pedal next to JX250	Instrument Panel Harness Routing - Dash Area (1 of 2)	JX200 Splice Pack
JX250	Instrument Panel Harness	—	In the instrument panel harness, left front side of the floor, where the carpet ends behind the brake pedal next to JX200	Instrument Panel Harness Routing - Dash Area (1 of 2)	JX250 Splice Pack

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
JX347	Body Harness	—	In the body harness, left side of the passenger compartment, attached to the lower left B-pillar part of G347	• Body Harness Routing - Left Front Passenger Compartment • Body Harness Routing - Right Front of Passenger Compartment (2 of 2)	JX347 Splice Pack
JX348	Body Harness	—	In the body harness, right side of the passenger compartment, attached to the lower right B-pillar part of G348	Body Harness Routing - Right Front of Passenger Compartment (1 of 2)	JX348 Splice Pack

Description and Operation

Power Mode Description and Operation

Serial Data Power Mode Master

Power to many of this vehicles circuits is controlled by the module that is designated the power mode master (PMM). This vehicles PMM is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle's body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is usefull to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The PMM will also activate relays and other direct outputs of the PMM as needed. The PMM determines which power mode (Off, Accessory, Run, Crank Request) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the PMM serial data message does not match what the individual module can see from its own connections.

The PMM receives ignition switch signals to identify the operators desired power mode. The PMM Power Mode Parameters table below illustrates the correct state of these input parameters (circuits) in correspondence to the ignition switch position:

PMM Power Mode Parameters

Ignition Switch Position	Power Mode Transmitted	Ign. Off / Run / Crank (Run Crank Ignition 1 Voltage Circuit)	Ignition Accessory / Run (Accessory Voltage Circuit)	Ignition Run / Crank (Ignition 1 Voltage Circuit)
Off Key Out	Off	Key Out/ACC	Inactive	Inactive
Off Key IN	Off	Key In/Off	Inactive	Inactive

PMM Power Mode Parameters (cont'd)

Ignition Switch Position	Power Mode Transmitted	Ign. Off / Run / Crank (Run Crank Ignition 1 Voltage Circuit)	Ignition Accessory / Run (Accessory Voltage Circuit)	Ignition Run / Crank (Ignition 1 Voltage Circuit)
Accessory	Accessory	Key Out/ACC	Active	Inactive
Run	Run	Run	Active	Active
Start	Crank Request	Crank	Inactive	Active

Relay Controlled Power Mode

The body control module (BCM) uses the discrete ignition switch inputs Run/Crank Ignition 1 Voltage, Accessory Voltage, and Ignition 1 Voltage, to distinguish the correct power mode. The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The RAP relay remains on for a timed period after the Ignition key is removed. Refer to *Retained Accessory Power Description and Operation on page 6-433* for more information on the retained accessory power (RAP) function.

BCM Awake/Sleep States

The body control module (BCM) is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

- The ignition switch is OFF, key out.
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

Retained Accessory Power Description and Operation

Retained Accessory Power (RAP)

The retained accessory power (RAP) system allows specific vehicle functions to operate for a specific amount of time after the ignition switch is turned OFF. The BCM monitors the ignition switch position, battery condition, and each door ajar/open switch status to determine whether RAP should be initiated or terminated. RAP is controlled with 2 different methods; serial data and relay control. Some modules receive a RAP message over the serial data circuits. Serial data controlled RAP is deactivated as required by their modules RAP power mode operation. Other subsystems are activated directly by the BCM through a RAP relay. Components and systems that are active in RAP are also activated anytime the ignition is any position other than OFF regardless of the door switch signals. The RAP relay is located in the body fuse block, is grounded at G302, and is controlled by the rap relay coil control circuit from the BCM.

Relay Controlled RAP

The BCM keeps the RAP relay energized during all power modes, except Off-Awake and Crank. The relay is also energized for approximately 10 minutes after shutting the ignition OFF and removing the key, providing no door is opened.

Relay controlled RAP will end when one of the following conditions is met:

- The BCM receives an input from any door ajar switch indicating the opening of any door after the ignition key is out of the ignition.

Important: If the BCM is receiving any door ajar signal from those switches when the ignition key is turned OFF, RAP will not initiate.

- The BCM internal timer for the RAP expires after approximately 10 minutes.
- The BCM detects a decrease in battery capacity below a prescribed limit.

The power window system is powered by the RAP relay during the retained accessory power (RAP) power mode.

Serial Data Controlled RAP

RAP systems controlled by serial data are as follows:

Radio

Radio RAP activation/termination is the same as relay operation with 1 exception; the only door switch that will turn off the radio during RAP is the driver door open switch.

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General Information

Introduction

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage (Chevrolet)

5138041

The VIN plate is the legal identifier of the vehicle. The VIN plate (1) is located on the upper left corner of the instrument panel (I/P) and can be seen through the windshield from the outside of the vehicle:

Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Region of Build	1	United States
2	Manufacturer	G	General Motors
		H	Navistar Inc.
3	Vehicle Brand/Type	A	Chevrolet Bus (Non School Bus)
		B	Chevrolet Incomplete Truck
		C	Chevrolet Truck
		A	Chevrolet Incomplete Truck (Navistar Only)

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
4	GVWR/Brake System/Body Style	W	8,001–9,000 lbs/Hydraulic/Cargo Van/Four Door Cab/ Utility or Passenger Van
		Y	8,001–9,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		Z	9,001–10,000 lbs/Hydraulic/Cargo Van/Four Door Cab/ Utility or Passenger Van
		0	9,001–10,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		3	10,001–14,000 lbs/HydraulicCommercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		6	14,001–16,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
5–6	Chassis/Series	G/A	Chevrolet Express, 2500 Cargo
		G/B	Chevrolet Express, 2500 Cargo EXT
		G/E	Chevrolet Express, 2500 Passenger LS
		G/F	Chevrolet Express, 2500 Passenger LT
		G/G	Chevrolet Express, 3500 Cargo
		G/H	Chevrolet Express, 3500 Cargo EXT
		G/L	Chevrolet Express, 3500 Passenger LS
		G/M	Chevrolet Express, 3500 Passenger LT
		G/N	Chevrolet Express, 3500 Passenger LS EXT
		G/P	Chevrolet Express, 3500 Passenger LT EXT
		G/R	Chevrolet Express, 3500 Cutaway 139" Wheelbase
		G/S	Chevrolet Express, 3500 Cutaway 159" Wheelbase
		G/T	4x2, Chevrolet Express, 3500 Cutaway 177" Wheelbase
		G/U	Chevrolet Express, 4500 Cutaway 159" Wheelbase
		G/V	Chevrolet Express, 4500 Cutaway 177" Wheelbase
		G/9	Chevrolet Express (Non-US, Non-Canada)
7	Restraint System	B	AJ3 − Active Manual Belts, Airbag − Driver only − Front
		C	AK5 − Active Manual Belts, Airbag-Driver & Passenger-Front – Front (1st row)
		F	AK5 & ASF − Active Manual Belts, Airbags - Driver & Passenger - Front (1st row), Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
		H	AJ3 & ASF - Active Manual Belts, Airbag - Driver only - Front, Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
8	Engine Type	P	RPO LV1 – Engine Gas, 6 CYL, 4.3L, SIDI, V6, VVT, E85 MAX, Iron
		1	RPO LWN - Engine Diesel, 2.8L, DI, L4, DOHC, Turbo, XLDE
9	Check Digit	—	Check Digit
10	Model Year	M	2021
11	Plant Location	1	Wentzville
		N	Springfield

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
12–17	Plant Sequence Number	—	Plant Sequence Number

2.8L RPO LWN Engine ID and VIN Derivative Location

Engine Identification

4.3L RPO LV1 Engine ID and VIN Derivative Location

Engine Identification

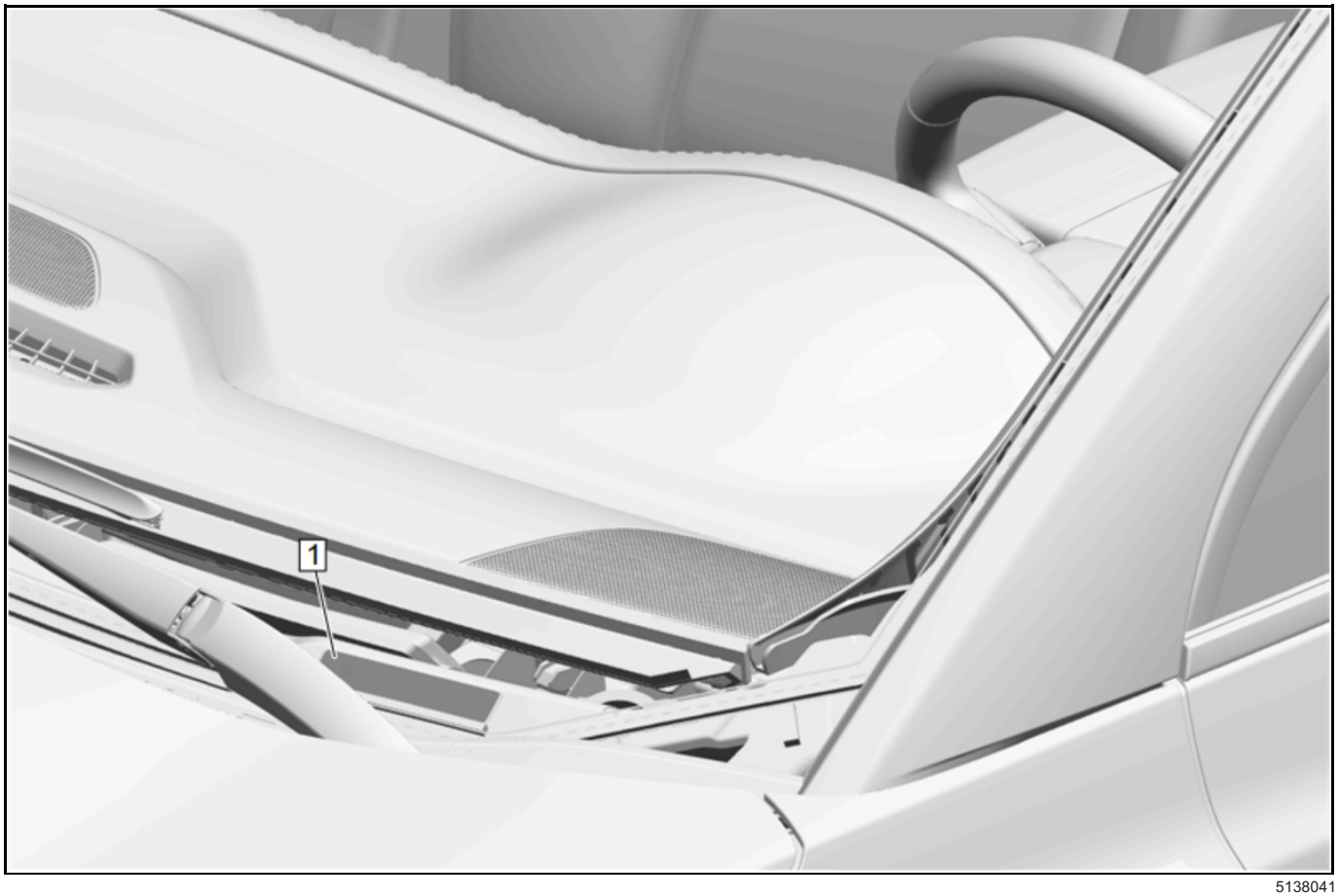
6L90 (MYD) Transmission ID and VIN Derivative Location

Transmission Identification Information

8L90 (M5U) Transmission ID and VIN Derivative Location

Transmission Identification Information

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage (GMC)



5138041

The VIN plate is the legal identifier of the vehicle. The VIN plate (1) is located on the upper left corner of the instrument panel (I/P) and can be seen through the windshield from the outside of the vehicle:

Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Region of Build	1	United States
		7	United States
2	Manufacturer	G	General Motors
		G	Navistar Inc. (7GZ Only)
3	Vehicle Brand/Type	D	GMC Incomplete Truck
		J	GMC Bus (Non School Bus)
		T	GMC Truck
		Z	GMC Incomplete Truck (Navistar Only)
4	GVWR/Brake System/Body Style	W	8,001–9,000 lbs/Hydraulic/CargoVan/Four Door Cab/ Utility or Passenger Van
		Y	8,001–9,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		Z	9,001–10,000 lbs/Hydraulic/CargoVan/Four Door Cab/ Utility or Passenger Van
		0	9,001–10,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		3	10,001–14,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		6	14,001–16,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
5–6	Chassis/Series	7/A	GMC Savana, 2500 Cargo
		7/B	GMC Savana, 2500 Cargo EXT
		7/E	GMC Savana, 2500 Passenger LS
		7/F	GMC Savana, 2500 Passenger LT
		7/G	GMC Savana, 3500 Cargo
		7/H	GMC Savana, 3500 Cargo EXT
		7/L	GMC Savana, 3500 Passenger LS
		7/M	GMC Savana, 3500 Passenger LT
		7/N	GMC Savana, 3500 Passenger LS EXT
		7/P	GMC Savana, 3500 Passenger LT EXT
		7/R	GMC Savana, 3500 Cutaway 139" Wheelbase
		7/S	GMC Savana, 3500 Cutaway 159" Wheelbase
		7/T	GMC Savana, 3500 Cutaway 177" Wheelbase
		7/U	GMC Savana, 4500 Cutaway 159" Wheelbase
		7/V	GMC Savana, 4500 Cutaway 177" Wheelbase
		7/9	GMC Savana (Non-US, Non-Canada)

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
7	Restraint System	B	AJ3 − Active Manual Belts, Airbag − Driver only − Front
		C	AK5 − Active Manual Belts, Airbag – Driver and Passenger – Front (1st row)
		F	AK5 & ASF − Active Manual Belts, Airbags - Driver & Passenger - Front (1st row), Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
		H	AJ3 & ASF — Active Manual belts, Airbag - Driver only - Front, Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
8	Engine Type	P	RPO LV1 – Engine Gas, 6 CYL, 4.3L, SIDI, V6, VVT, E85 MAX, Iron
		1	RPO LWN - Engine Diesel, 2.8L, DI, L4, DOHC, Turbo, XLDE
9	Check Digit	—	Check Digit
10	Model Year	M	2021
11	Plant Location	1	Wentzville
		N	Springfield
12–17	Plant Sequence Number	—	Plant Sequence Number

2.8L RPO LWN Engine ID and VIN Derivative Location

Engine Identification

4.3L RPO LV1 Engine ID and VIN Derivative Location

Engine Identification>

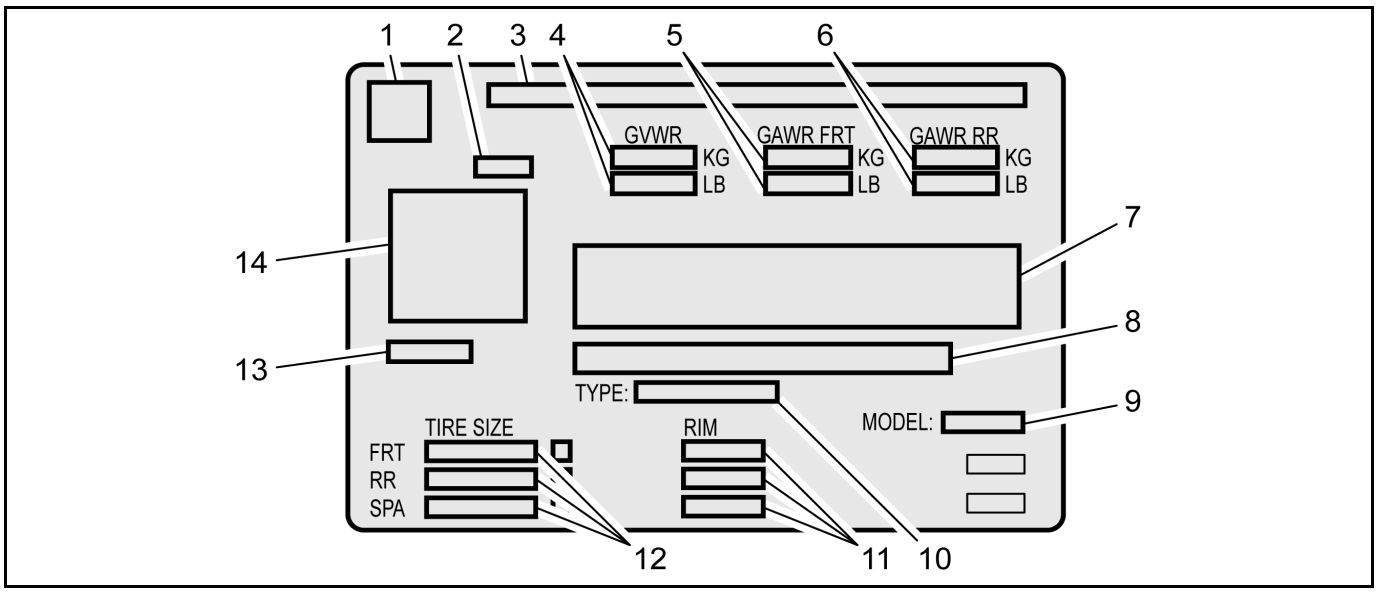
6L90 (MYD) Transmission ID and VIN Derivative Location

Transmission Identification Information

8L90 (M5U) Transmission ID and VIN Derivative Location

Transmission Identification Information

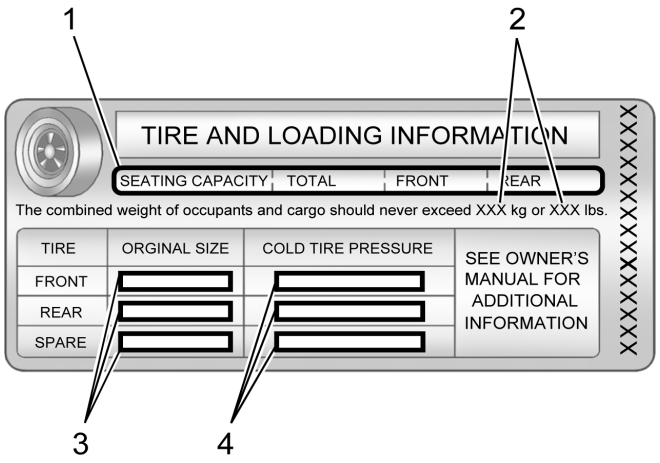
Vehicle Certification, Tire Placard, and Anti-Theft Label



4992823

Vehicle Certification Label

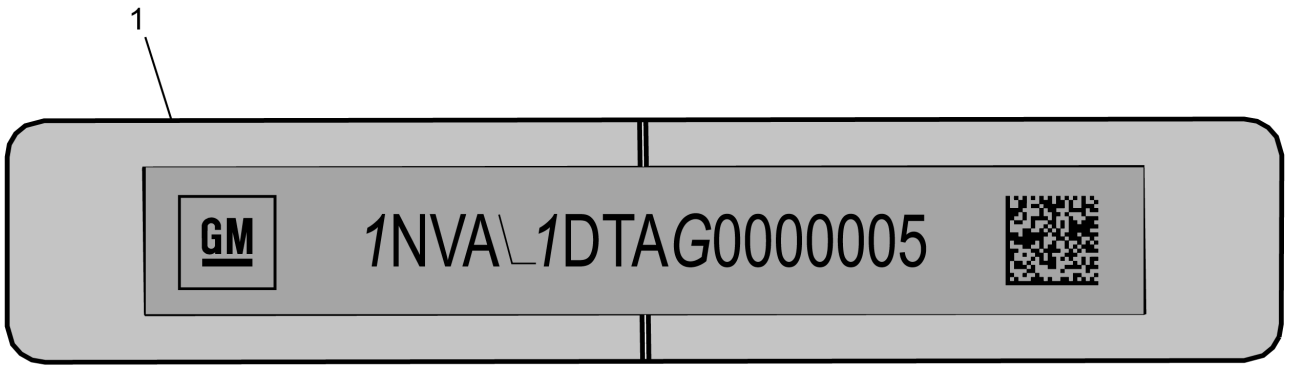
Callout	Description
A vehicle-specific Certification label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Logo
2	Final Date of Manufacture (Month and Year MM/YY) Date of manufacture is to reflect the date that the vehicle is counted as built. In those cases where a replacement label is needed, the replacement label should reflect the actual build date not the date of replacement.
3	Name of Manufacturer
4	Maximum Gross Vehicle Weight Rating (GVWR)
5	Maximum Gross Axle Weight Rating (GAWR) - Front
6	Maximum Gross Axle Weight Rating (GAWR) - Rear
7	Certification Statement
8	Vehicle Identification Number (VIN)
9	Engineering Model Number
10	Vehicle Class Type (Pass Car, etc.)
11	Original Equipment Rim Size
12	Original Equipment Tire Size
13	Paint Code
14	QR Code Once the QR code is scanned, the information will appear in this order on your smartphone or laptop: VIN, Model Year, Model, Build Month, Year, Engineering Book, Vehicle Order Number, 3 Digit RPO Codes sorted alphanumerically and the Paint Code (same code appears the lower left of the QR code)



4962282

Tire Placard

Callout	Description
A vehicle-specific Tire and Loading Information label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Specified Occupant Seating Positions
2	Maximum Vehicle Capacity Weight
3	Original Equipment Tire Size
4	Tire Pressure, Front, Rear, and Spare (Cold)



4962289

Anti-Theft Label

Callout	Description
This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification and certificates of title and registration.	
1	Vehicle Identification Number (VIN)

Section 2

Body Systems

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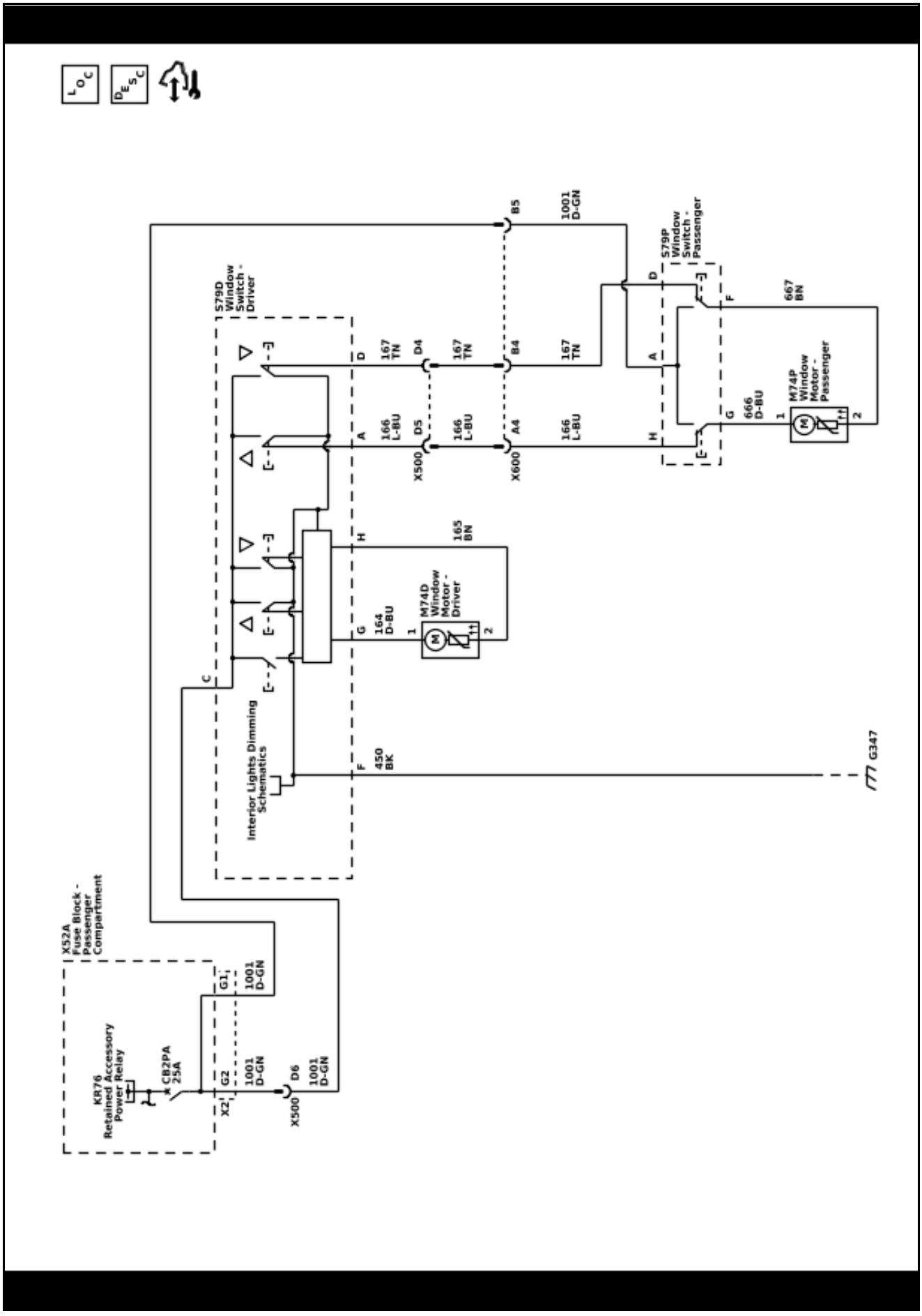
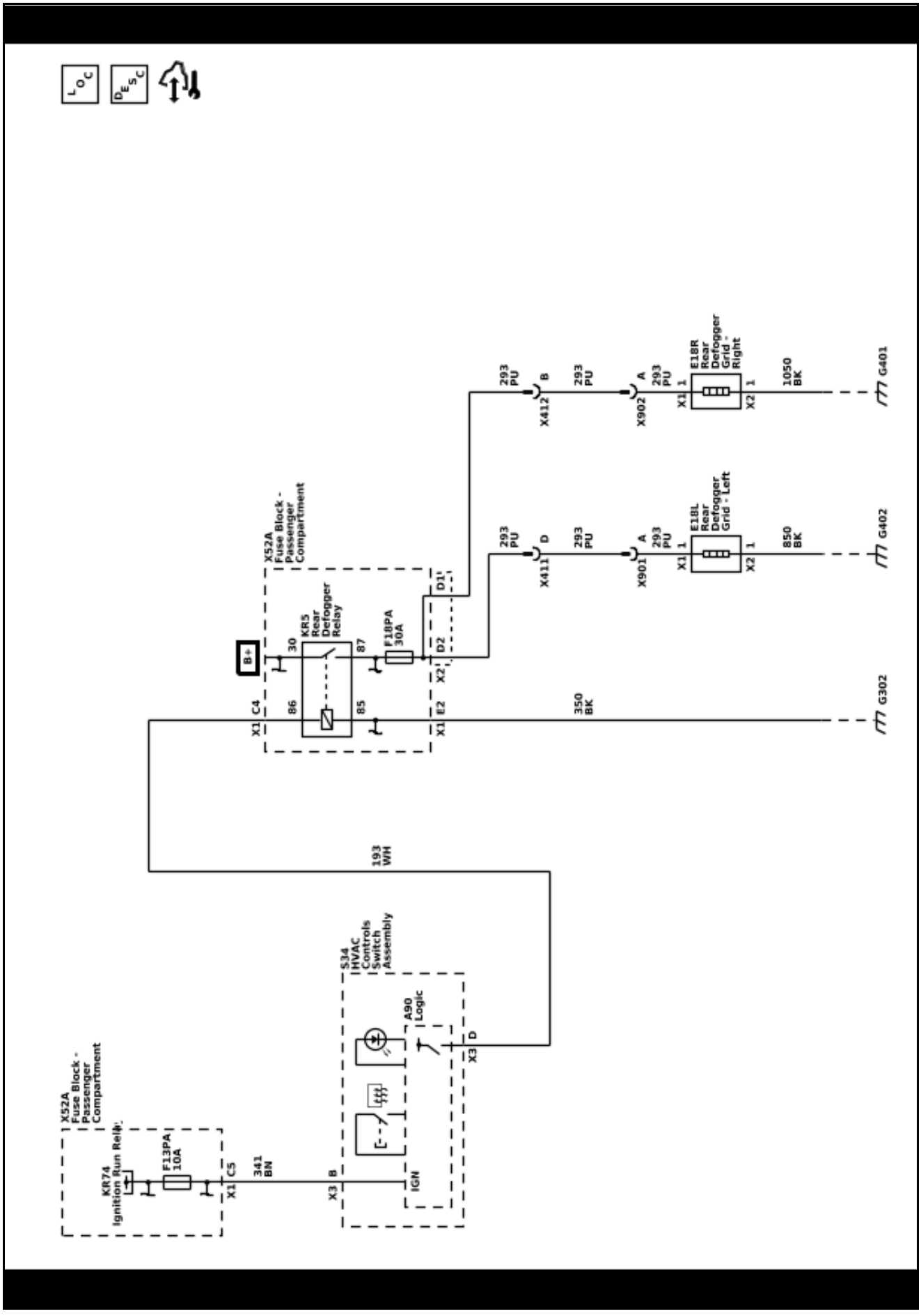
Fixed and Moveable Windows

Schematic and Routing Diagrams

Moveable Window Schematics (Moveable Windows (A31))



Defogger Schematics (Defogger (C49))



Description and Operation

Power Windows Description and Operation

Power Window System Components

The power window system consists of the following components:

- LF power window master switch
- RF power window switch
- Reversible power window motors in each of the doors (circuit breaker protected)
- PWR WNDW 25A circuit breaker

Power Window System Controls

The power window system will operate anytime the ignition switch is in the ACCY or ON position or when RAP is activated.

The LF power window master switch can control the up and down functions of both the windows in the vehicle. The passenger door power window switch can only control the up and down functions of the passenger window.

Power Window Motor Operation

A permanent magnet motor operates each of the power side windows. Each motor raises or lowers the glass when the motor receives voltage. The direction the motor turns depends on the polarity of the supply voltage. The power window switches control the polarity of the supply voltage. A built-in circuit breaker protects each motor. The circuit breaker opens when the switch is depressed for a extended period of time under the following conditions:

- The window has an obstruction.
- The window is fully open or fully closed.

The circuit breaker will reset automatically as the circuit breaker cools.

Power Window Operation

The normally closed contacts of the switch are connected to ground and the center pole is connected to the accessory voltage circuit. By placing the left power window switch in the down position, voltage is applied to the power window motor left front down circuit and to the power window motor. The other side of the power window motor is connected to ground through the normally closed contacts of the left power window switch through the power window motor left front up circuit and drives the window down.

By placing the power window switch in the up position the polarity of the motor is reversed and the motor drives the window up.

Rear Window Defogger Description and Operation

Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- HVAC control assembly
- Rear window defogger relay
- Rear window defogger grid

Rear Window Defogger Operation

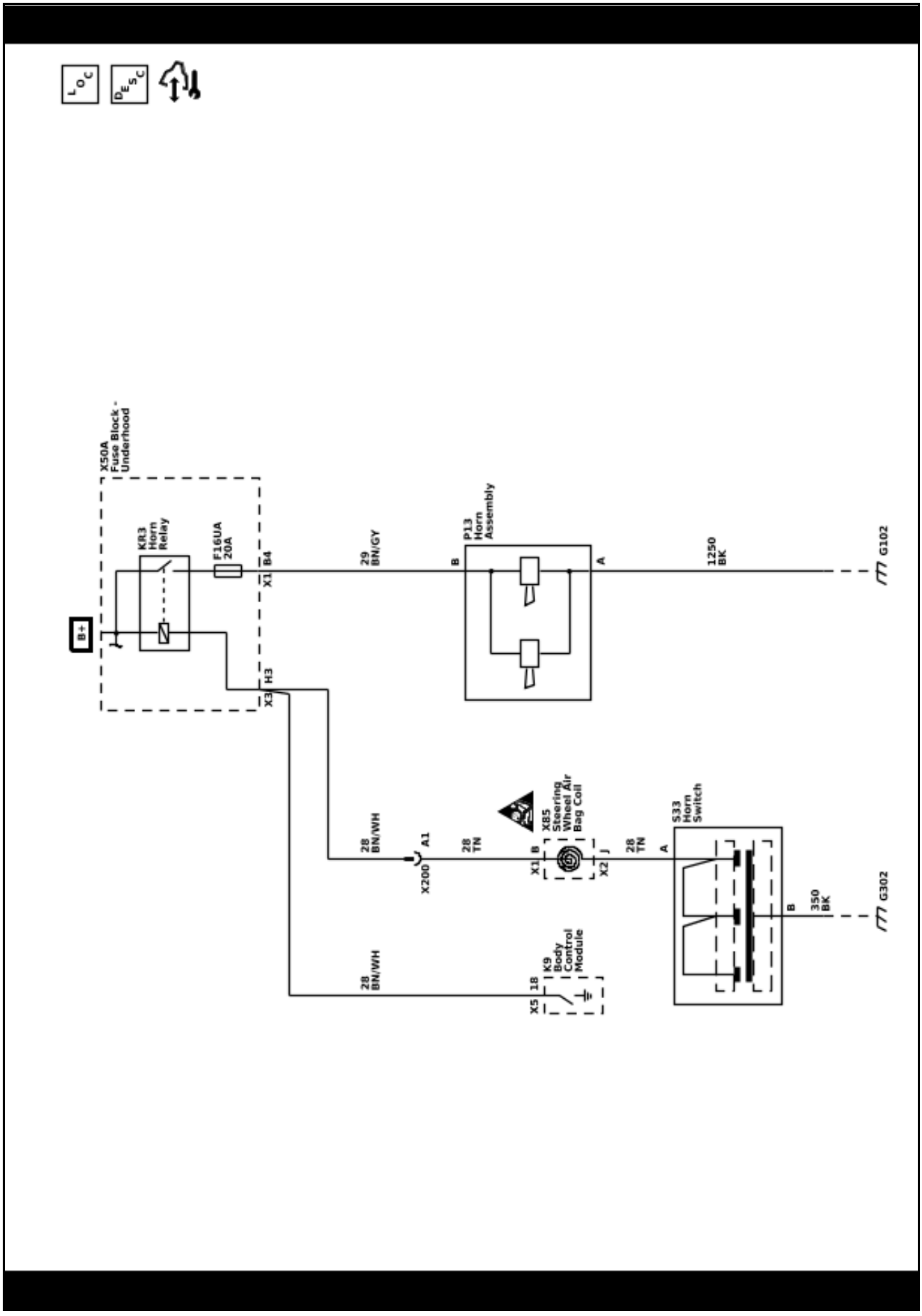
When you turn the ignition to the ON position, battery positive voltage is supplied through the HTD MIR DEFOG fuse to the rear window defogger relay switched input. Ground is for the rear window defogger relay coil is provided by G302. Battery positive voltage and ignition voltage is supplied to the HVAC control assembly for rear window defogger operation. When the rear window defogger switch is depressed, the HVAC control assembly energizes the rear window defogger relay by supplying battery positive voltage to the rear window defogger relay coil. This allows battery positive voltage from the relay switched input through the switch contacts and out the relay switched output to the rear window defogger grids. The HVAC control assembly also illuminates the rear window defogger indicator upon this request. Ground for the left rear window defogger grid is provided by G401. Ground for the right rear window defogger grid is provided by G402.

When you turn ON the ignition and press the rear window defogger switch for the first time, the defogger cycle lasts 10 minutes. Further operation results in 5 minute defogger cycles. The defogger cycle resets to 10 minutes when you cycle the ignition to the OFF position and then back to the ON position.

Horns and Pedestrian Alerts

Schematic and Routing Diagrams

Horn Schematics (Horn Schematics)



Description and Operation

Horns System Description and Operation

System Description

The horn system consists of the following components:

- The HORN fuse
- The Horn relay
- The Horn Contact
- The Horn Assembly
- Body Control Module (BCM)

System Operation

- The vehicle horns are activated whenever the horn switch is depressed.
- The BCM commands the horns ON under any of the following conditions:
  - When the panic button is depressed on the remote control door lock transmitter. For further information refer to Keyless Entry System Description and Operation.
  - When the keyless entry system is used to lock the vehicle, a horn chirp may sound to notify the driver that the vehicle has been locked. The notification feature may be enabled or disabled through personalization. For further information refer to Keyless Entry System Description and Operation.

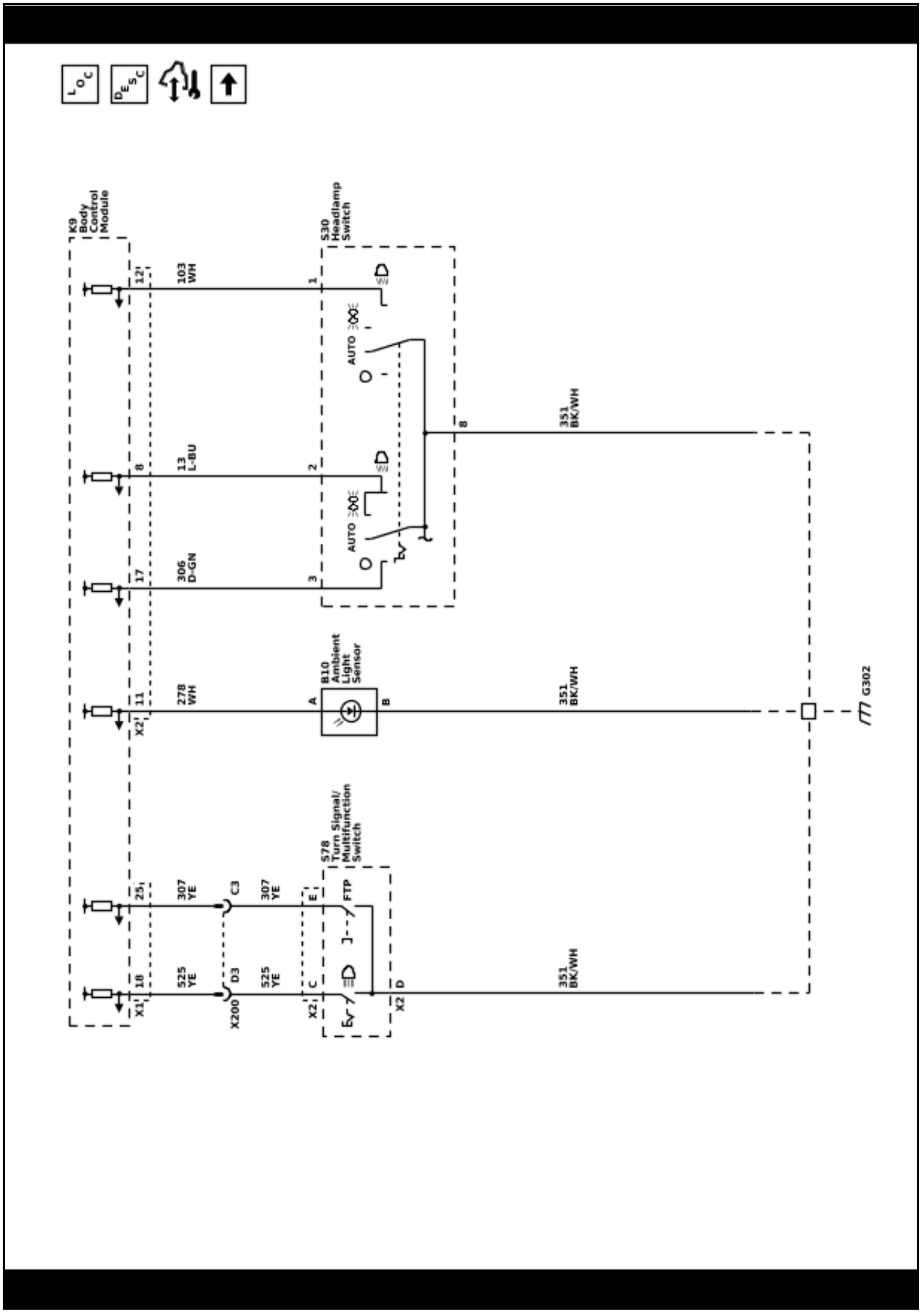
Circuit Operation

Battery positive voltage is applied at all times to the horn relay coil and the horn relay switch. Pressing the horn switch applies ground to the horn relay control circuit. When the horn relay control circuit is grounded, the horn relay is energized and battery positive voltage is applied to the horns through the horn control circuit. The horns sound as long as ground is applied to the horn relay control circuit.

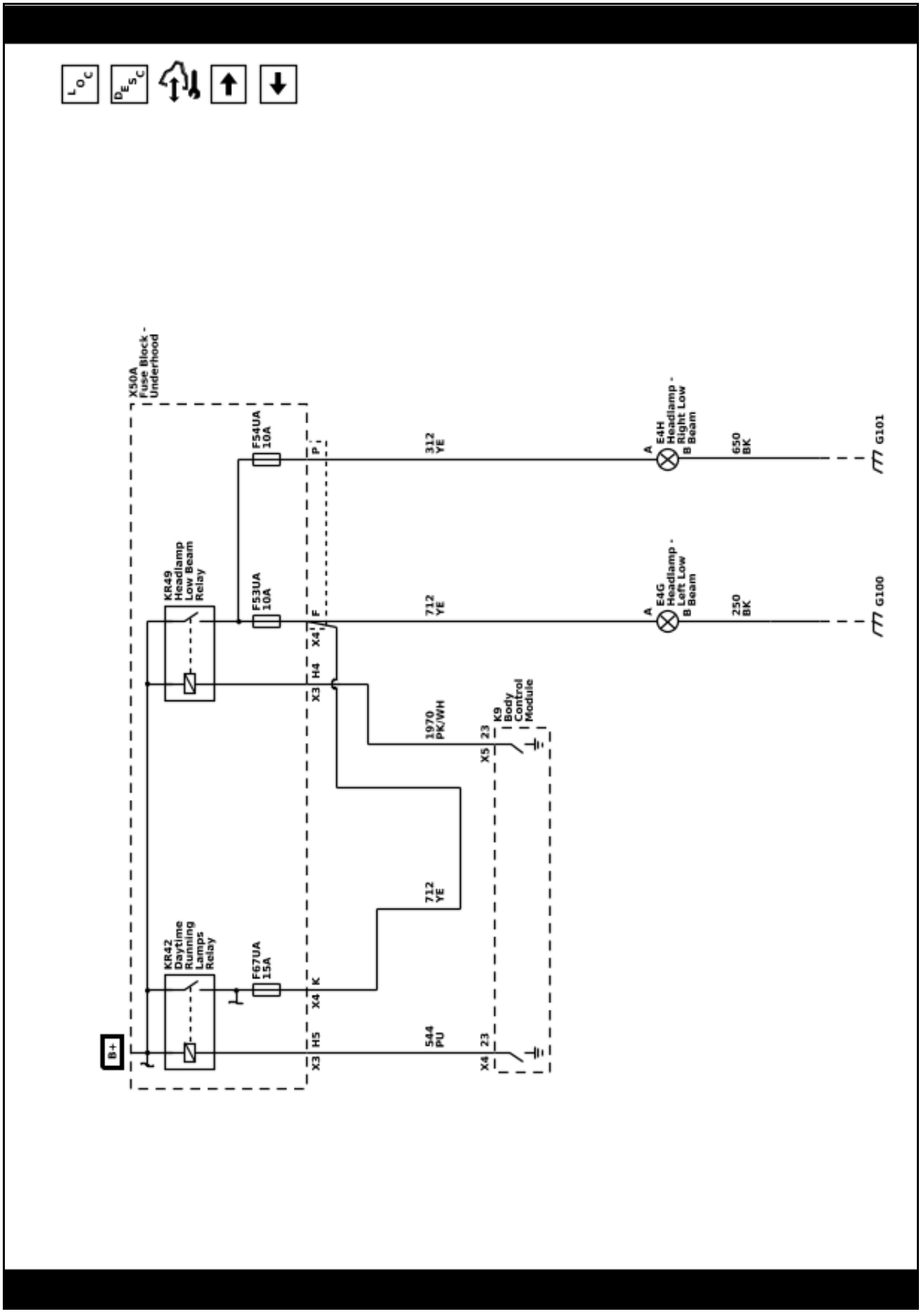
Lighting

Schematic and Routing Diagrams

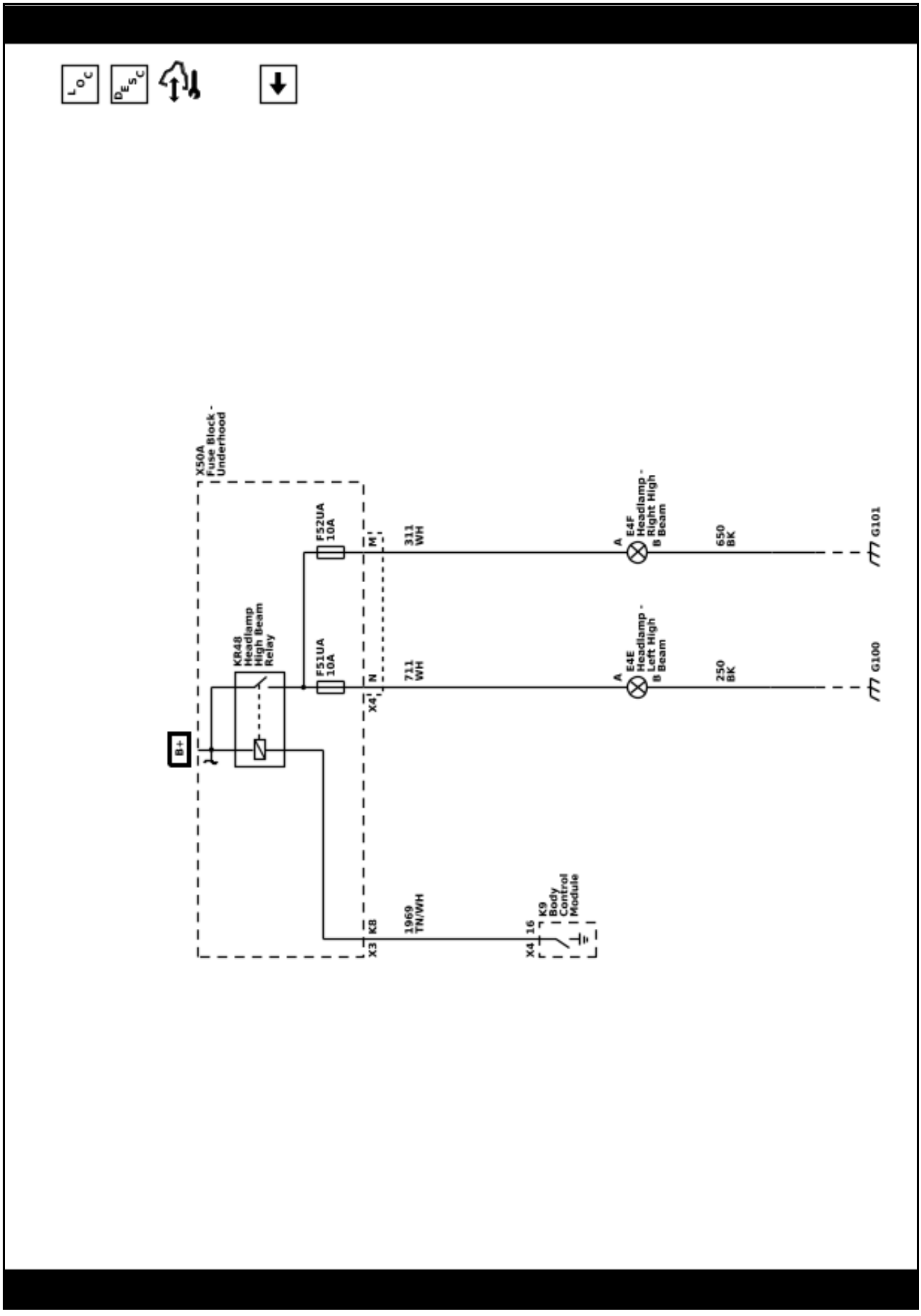
Headlights/Daytime Running Lights (DRL) Schematics (Headlamp and Daytime Running Lamp Controls)



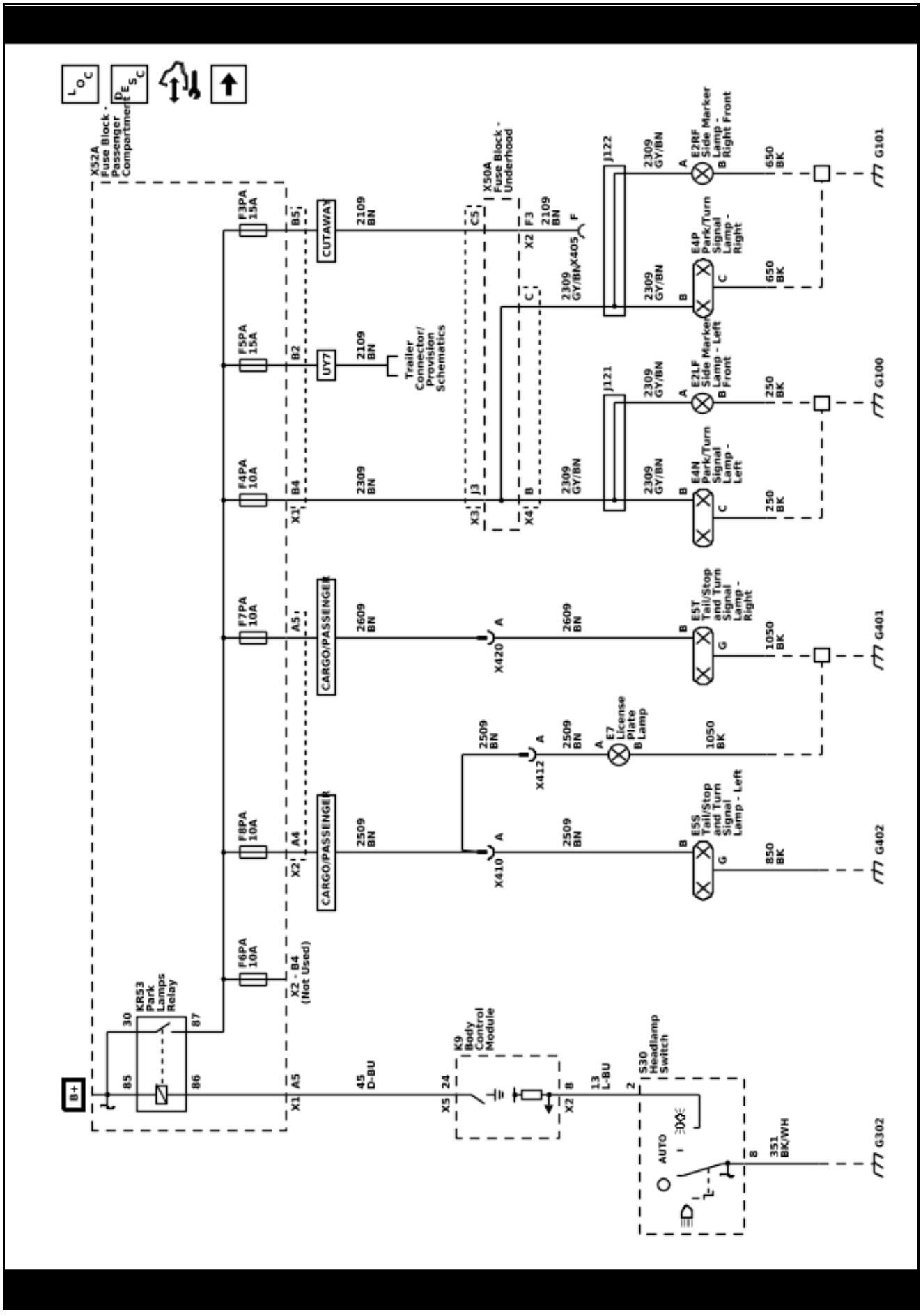
Headlights/Daytime Running Lights (DRL) Schematics (Low Beam and Daytime Running Lights (DRL))



Headlights/Daytime Running Lights (DRL) Schematics (High Beams)



Exterior Lights Schematics (Park Lamp Controls and Park Lamps)



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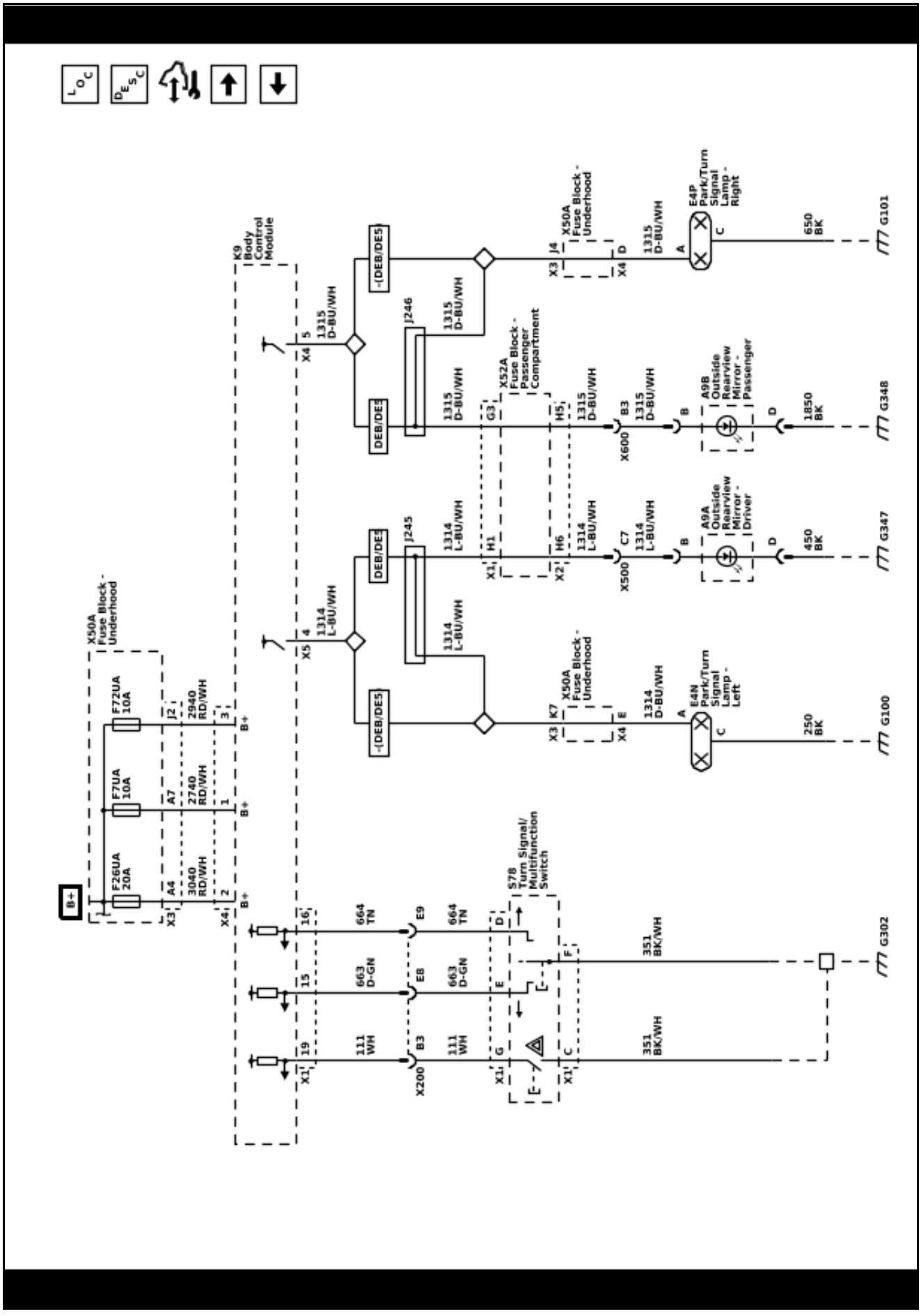
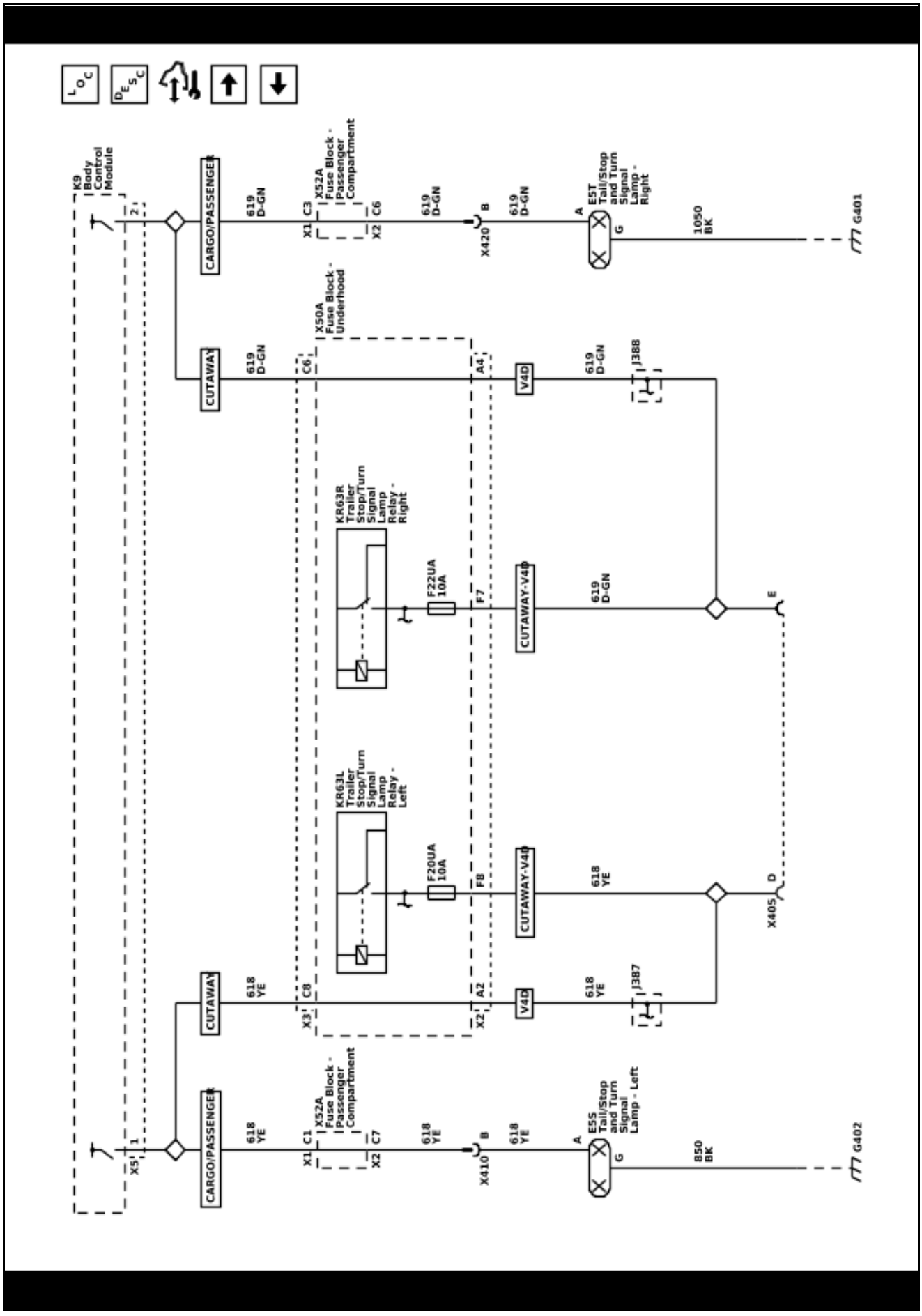
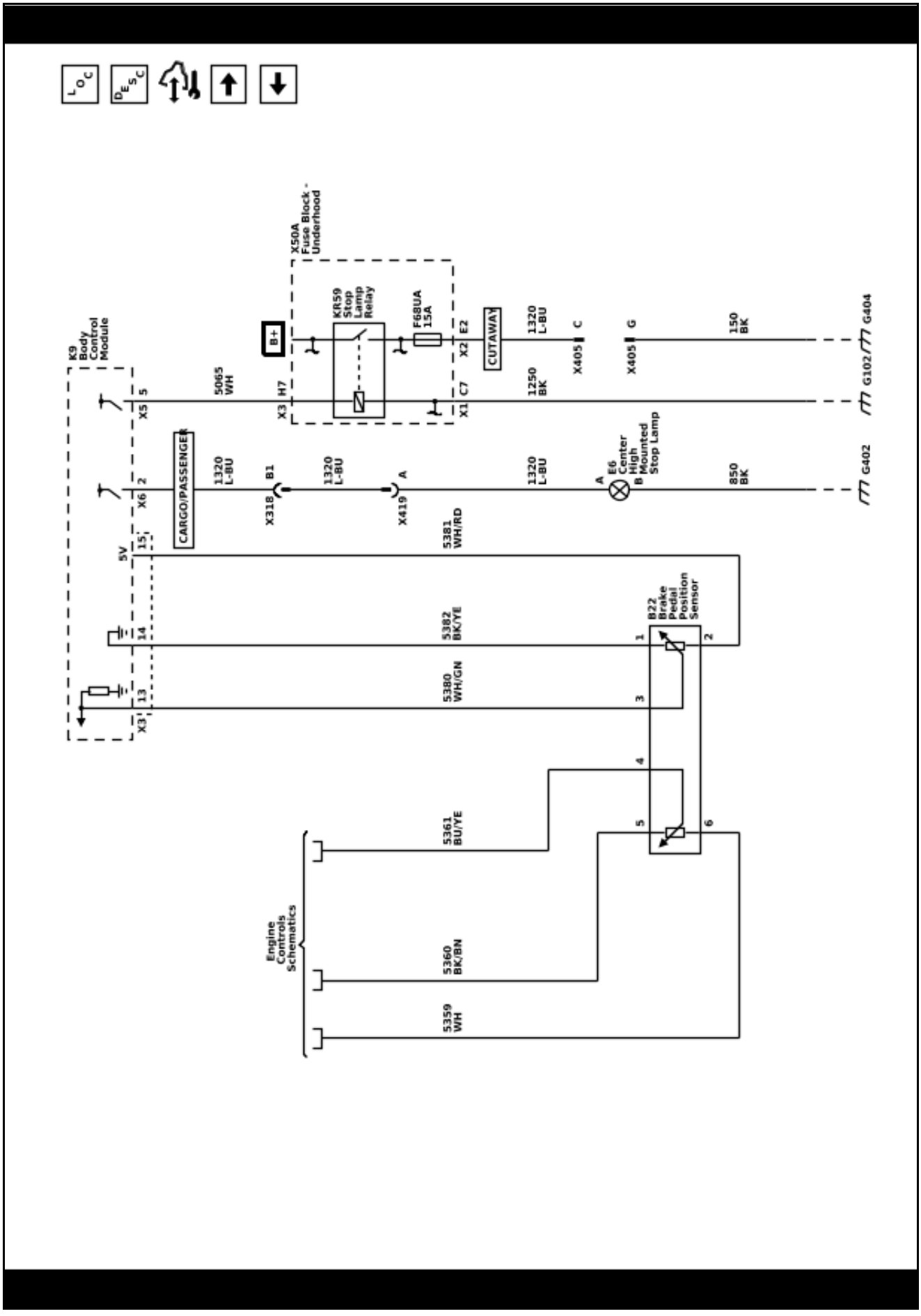
Exterior Lights Schematics (Turn Signal Controls and Front Turn Signal Lamps)



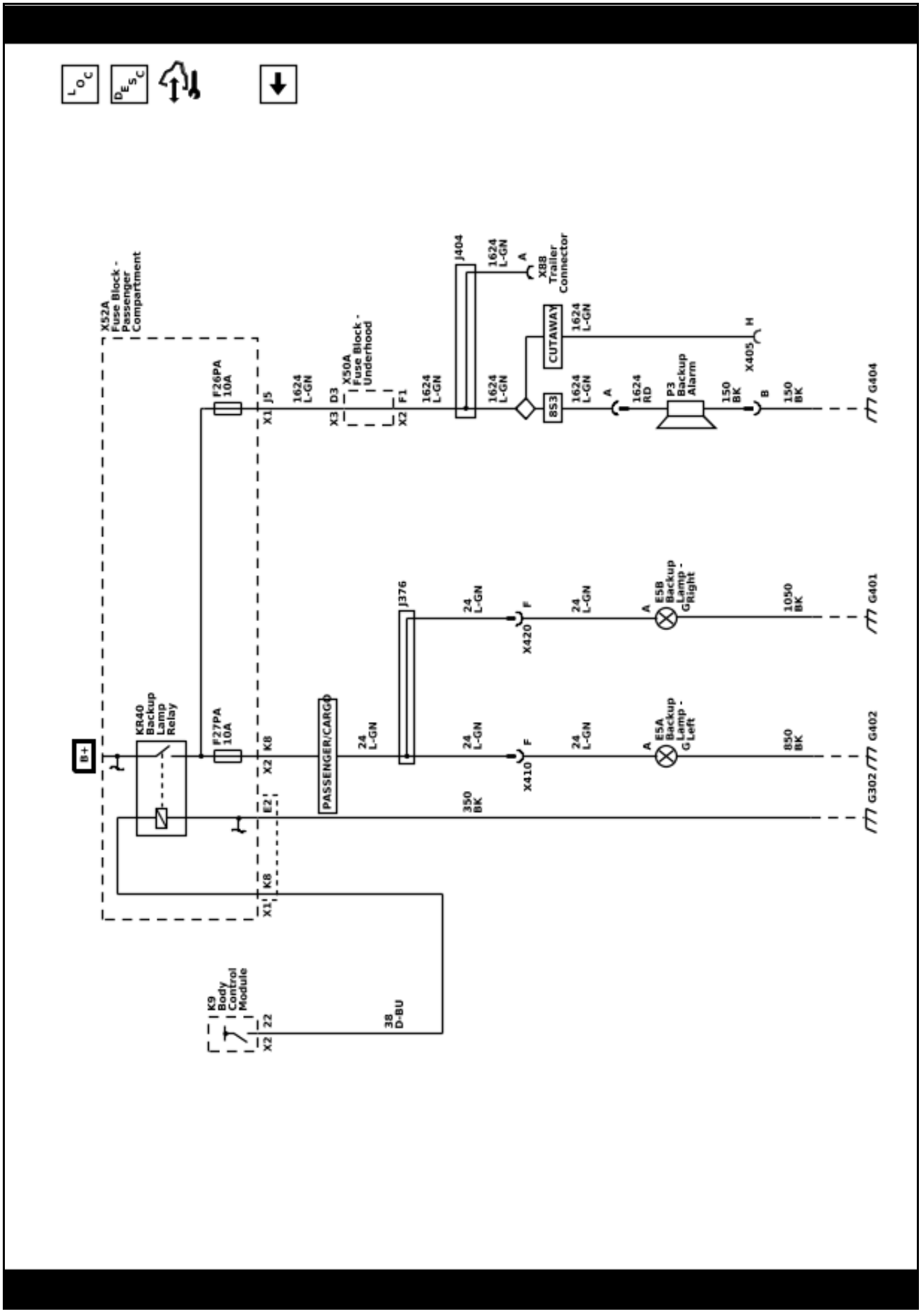
Exterior Lights Schematics (Rear Turn Signal Lamps)



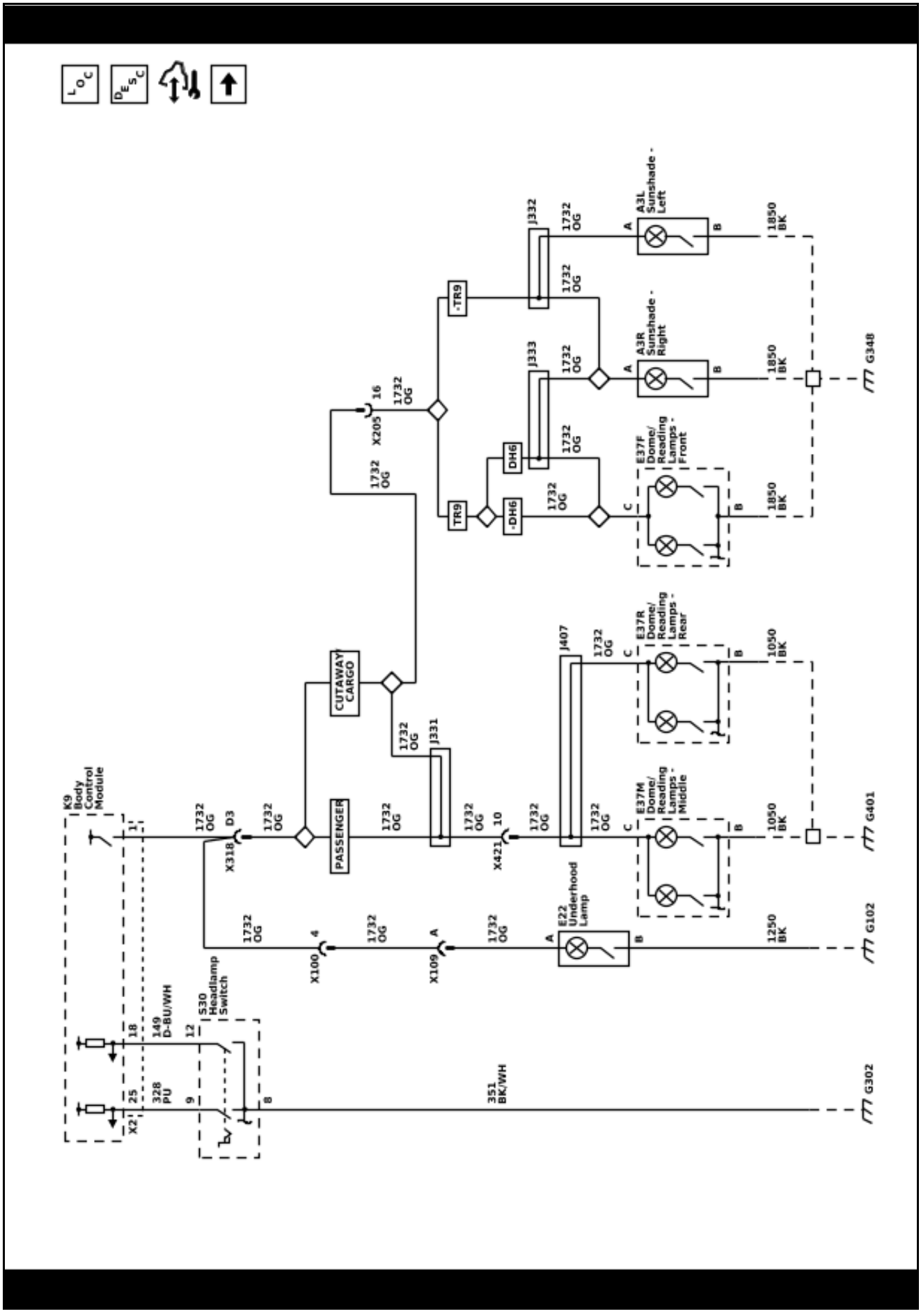
Exterior Lights Schematics (Stop Lamp Controls and CHMSL)



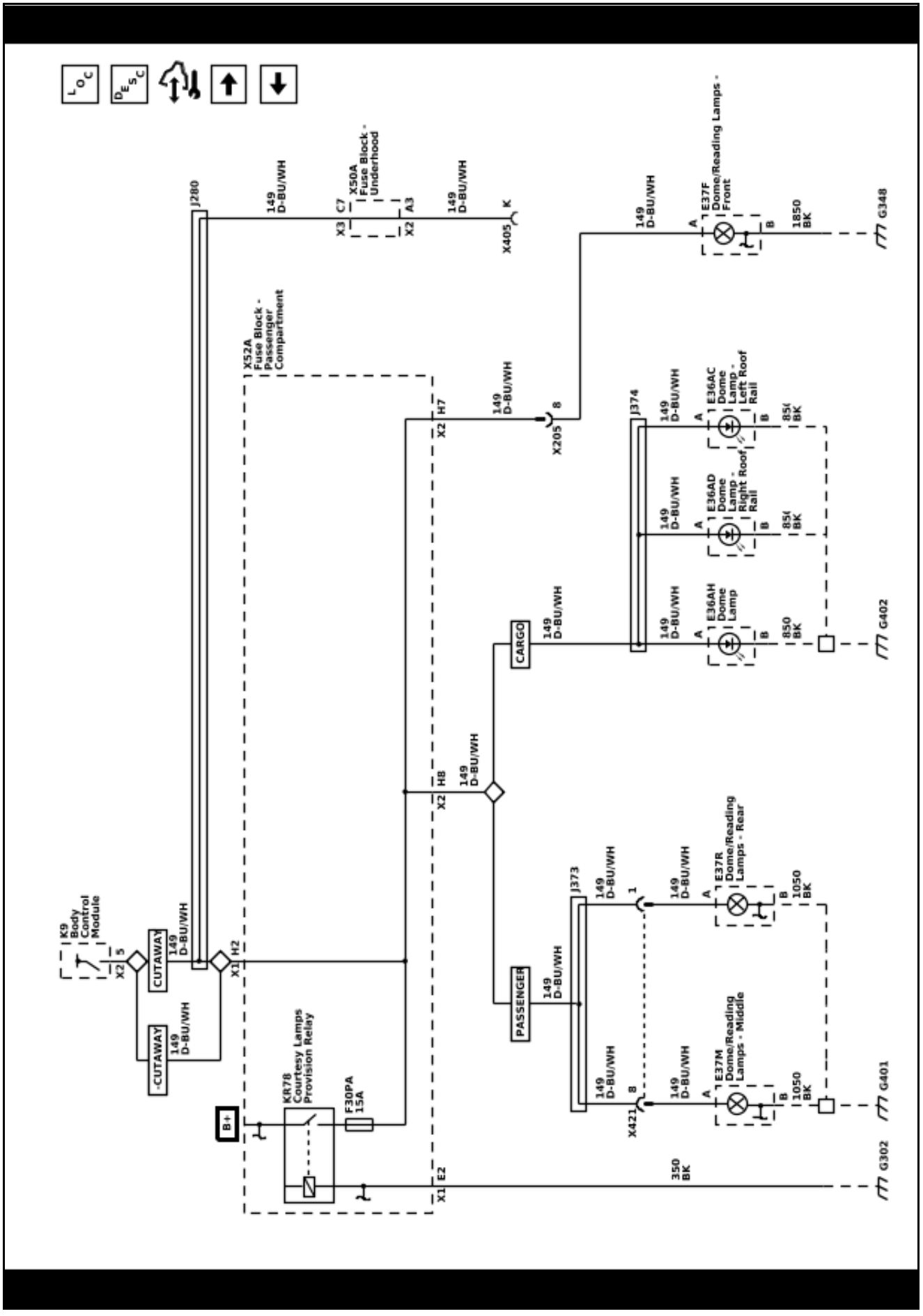
Exterior Lights Schematics (Backup Lamps and Backup Alarm)



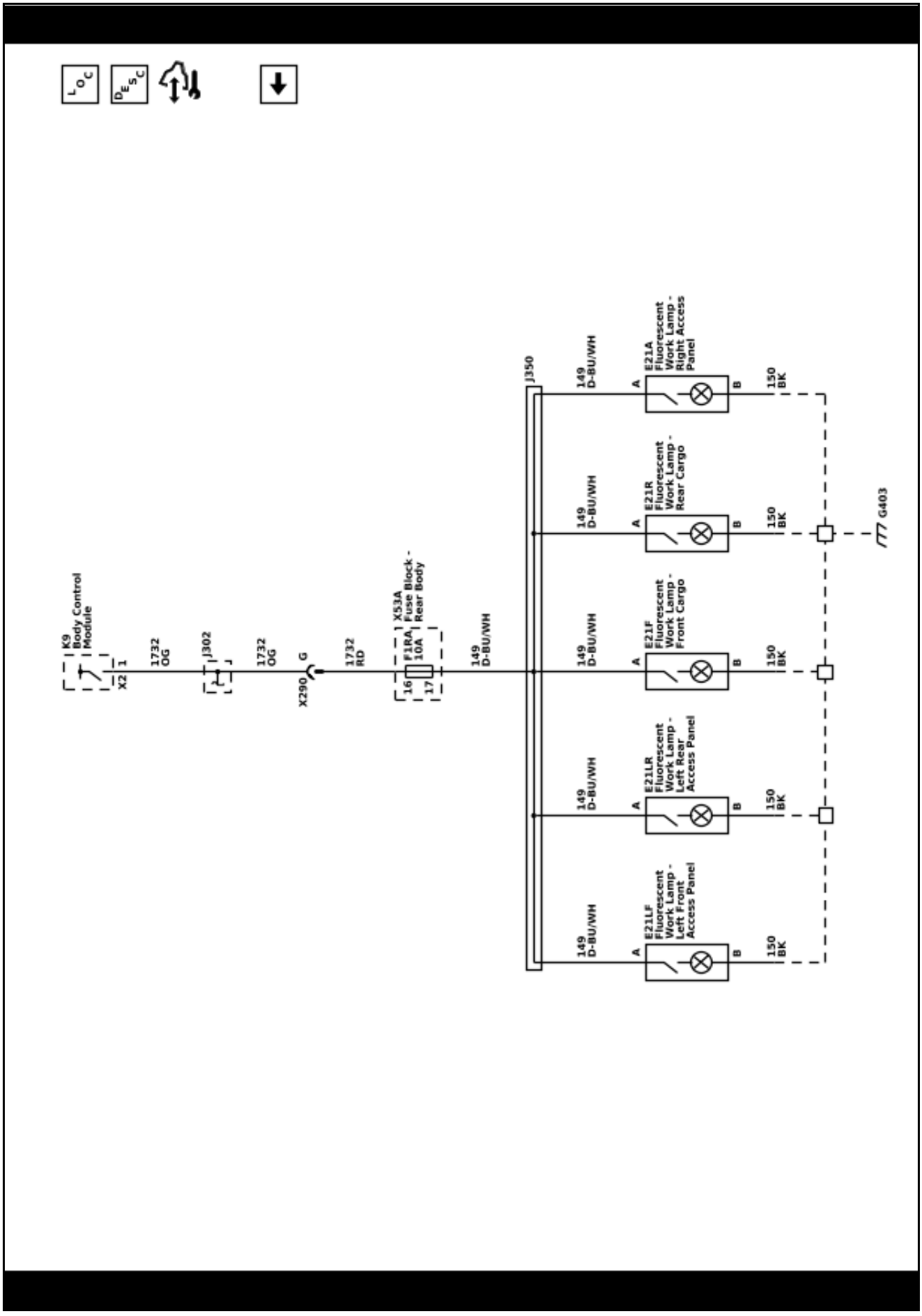
Interior Lights Schematics (Inadvertent Lamp Control)



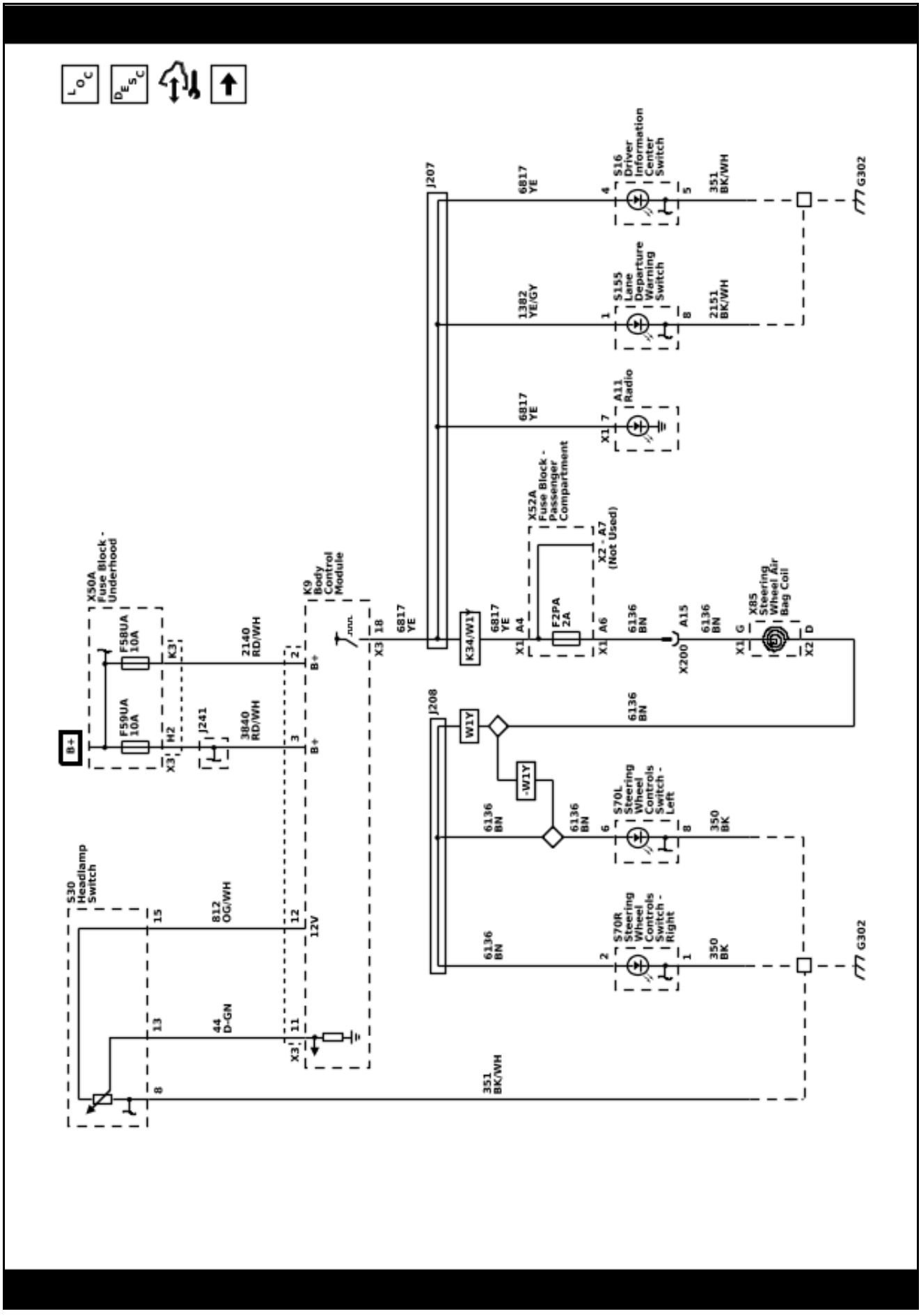
Interior Lights Schematics (Courtesy Lamp Control)



Interior Lights Schematics (Side Access Panel and Cargo Work Lamps (PRP with UF2))



Interior Lights Dimming Schematics (Dimming Controls and LED Dimming)



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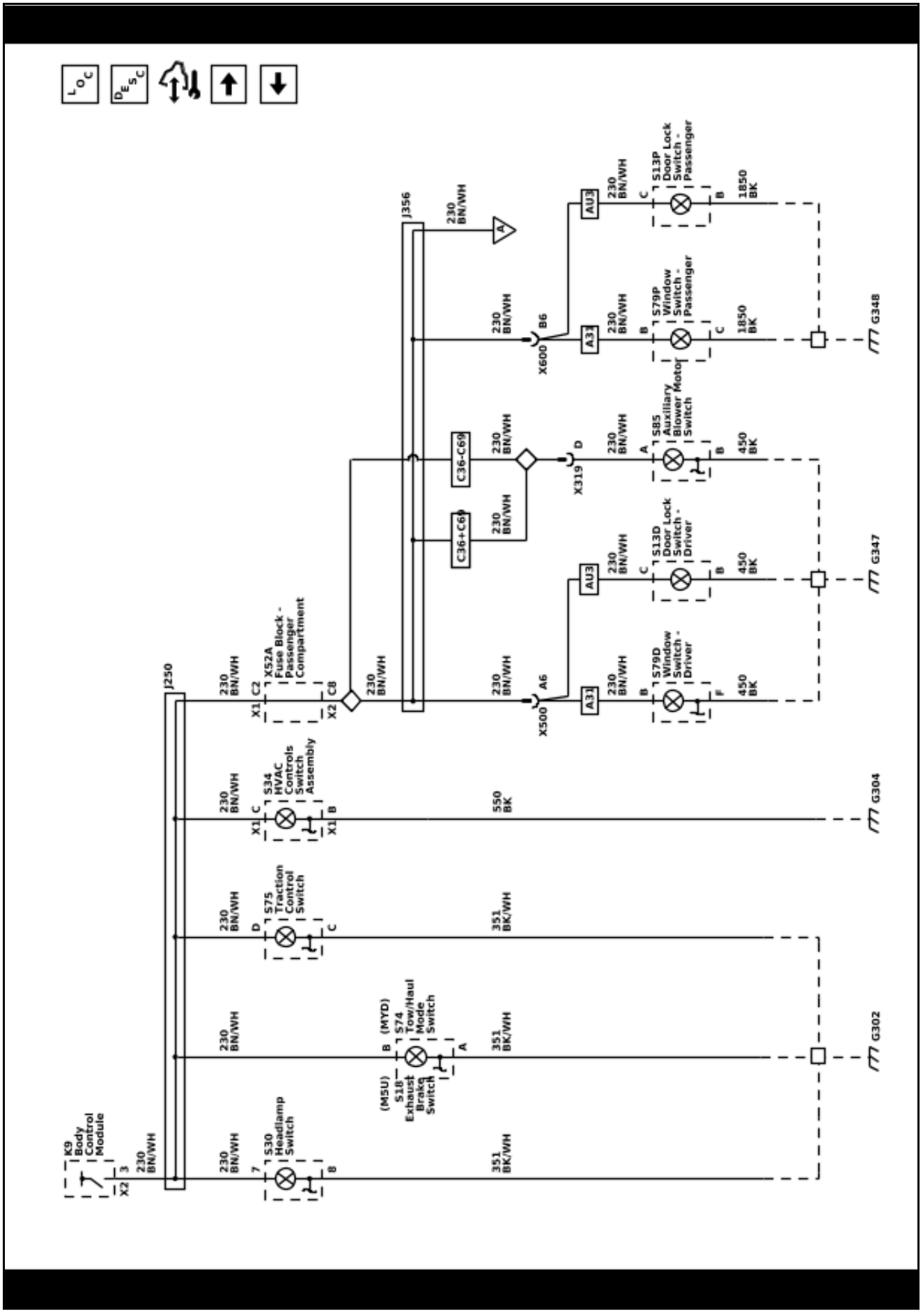
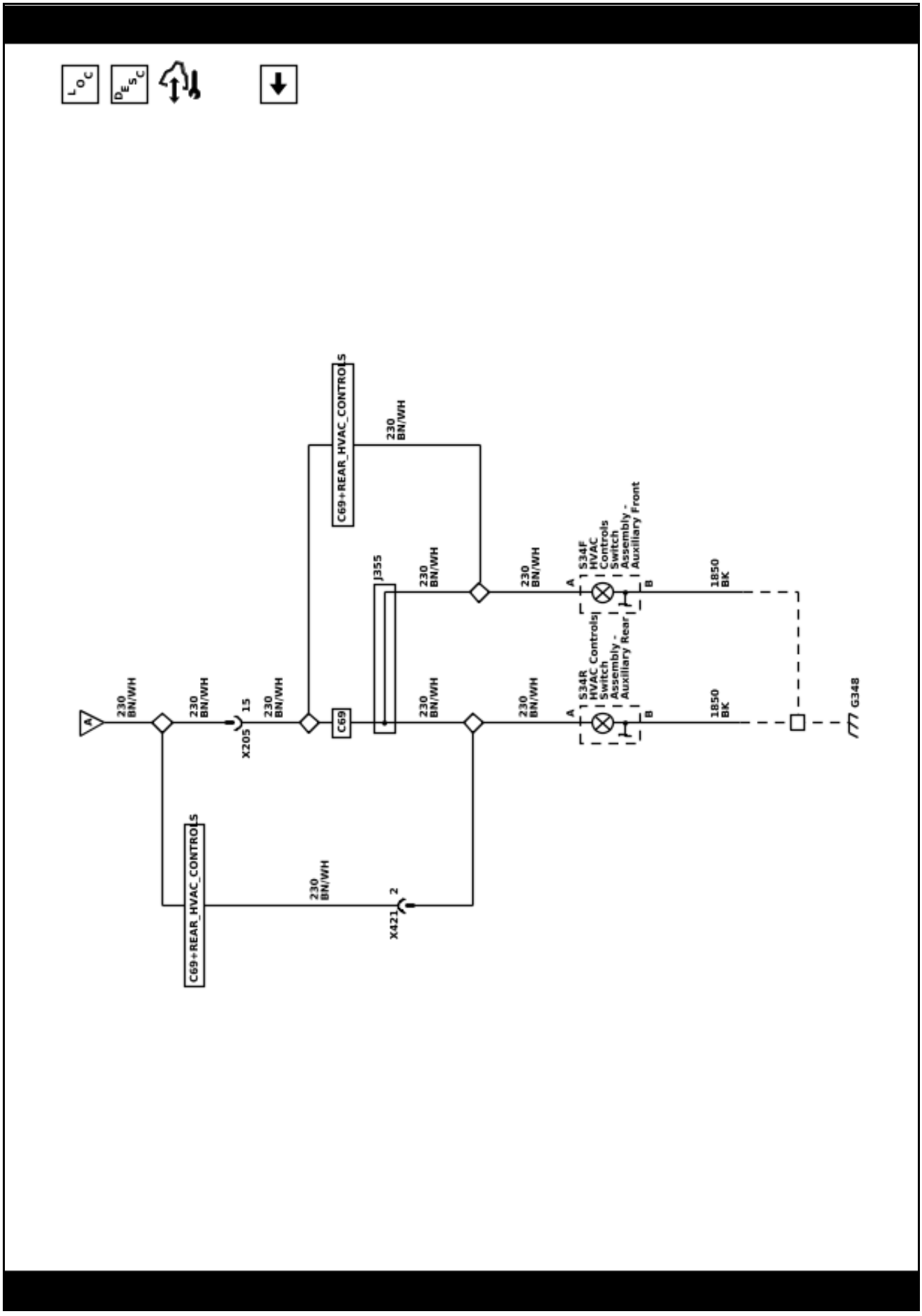
Interior Lights Dimming Schematics (I/P Bulb Dimming (1 of 2))



Interior Lights Dimming Schematics (I/P Bulb Dimming (2 of 2))



Description and Operation
Exterior Lighting Systems Description and Operation

Exterior Lamps

The exterior lighting consist of the following lamps:

- Headlamps
- Daytime running lamps (DRL)
- Park lamps
- Tail lamps
- License lamps
- Marker lamps
- Turn signal lamps
- Stop lamps
- Center high mounted stop lamp (CHMSL)
- Backup lamps

Low Beam Headlamp Operation

The headlamps may be turned ON in 3 different ways:

- When the headlamp switch in the HEAD position for normal operations
- When the headlamp switch is in the AUTO position, for automatic lamp control (ALC)
- When the headlamp switch is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

Battery voltage is applied at all times to the coil and switch sides of the LOW BEAM PCB Relay located in the underhood fuse block. With the headlamp switch in the headlamps ON position, ground is applied through the headlamps ON switch signal circuit to the body control module (BCM) signaling the headlamps ON request. In response to this signal, the BCM applies ground through the low beam relay control circuit energizing the LOW BEAM PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the LT and RT LOW BEAM fuses, and the low beam supply voltage circuits illuminating the low beam headlamps.

High Beam Headlamp Operation

Battery voltage is applied at all times to the coil and switch sides of the HIGH BEAM PCB Relay located in the underhood fuse block. When the headlamp dimmer switch is placed in the high beam position, the headlamp dimmer switch signal circuit to the BCM is pulled low signaling the headlamp high beam request. In response to this signal, the BCM applies ground through the high beam relay control circuit energizing the high beam relay. With the relay energized, battery voltage is applied through the switch side of the relay, the LT and RT HIGH BEAM fuses, and the high beam supply voltage circuits illuminating the high beam headlamps. At the same time the BCM sends a serial data message to the instrument panel cluster (IPC) requesting the IPC to illuminate the high beam indicator.

Flash to Pass (FTP)

When the headlamp dimmer switch is pulled toward the driver, the flash to pass signal circuit to the BCM is pulled low signaling the flash to pass request. The BCM then turns ON the high beam headlamps as described above until the headlamp dimmer switch is released. If the low beam headlamps were ON during FTP operation they will remain ON.

Daytime Running Lamps (DRL) and Automatic Lamp Control (ALC)

The low beam headlamps are used for DRL operation at a reduced intensity. The DRLs will operate only with the ignition ON, the headlamp switch in the AUTO position, and the gear selector out of the park position. No other exterior lamps such as the parking lamps, tail lamps, etc. will be on when the DRL are being used. The instrument panel will not be illuminated either.

DRL operation is determined by the ambient light sensor and controlled by the body control module (BCM). The ambient light sensor is a light-sensitive transistor used to monitor outside lighting conditions. The BCM provides a 5-volt reference signal to the sensor. The sensor will vary this voltage signal between 0.2 and 4.9 volts depending on outside lighting conditions. The BCM monitors the ambient light sensor signal circuit to determine if outside lighting conditions are correct for either DRL or ALC operation. When the BCM determines the conditions are met for DRL operation, it applies ground to the DRL relay control circuit energizing the DRL PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the DRL 1 fuse, the DRL 2 fuse, both low beam headlamp fuses, and the low beam supply voltage circuits illuminating the headlamps at a reduced intensity. Any function or condition that turns on the headlamps will cancel DRL operation.

When the BCM detects low light conditions, it will turn OFF the daytime running lamps and turn ON the low beam headlamps as described above in Low Beam Headlamp Operation. The BCM will also turn ON the low beam headlamps in daylight conditions when the windshield wipers are turned ON.

HDLPS Suggested Indicator

If the park lamps are turned ON manually and the ambient light sensor detects a low light condition then the body control module (BCM) will send a message to the instrument panel cluster (IPC) to display the HEADLAMPS SUGGESTED message.

Lights ON Warning

The body control module (BCM) activates the lights ON warning as requested by the headlamp dimmer switch. The lights ON warning sounds when the following occurs:

- The key is out of the ignition.
- The BCM determines that the drivers door is open, signal is low.
- The BCM determines that the headlamp switch is in the PARK or HEAD position.

Park, Tail, Marker and License Lamps

The park, tail, and marker lamps are turned ON when the headlamp switch is placed in either the HEAD or PARK lamp positions, or anytime the automatic light control (ALC) turns the headlamps ON. When the headlamp switch is placed in the park lamp or headlamp positions, ground is applied through the switch signal circuit to the BCM indicating the park lamp ON request. In response to this signal, the BCM applies ground through the park lamp relay control circuit energizing the PRK LAMP Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the park lamp fuses, and the supply voltage circuits illuminating the park, license, side marker, and tail lamps.

Turn Signal Lamps

The BCM 3, BCM 5, and BCM 6 fuses located in the underhood fuse block supply battery voltage to the body control module (BCM) for turn signal, hazard lamp, and stop lamp operation. Voltage from the BCM 5 fuse used for the front and rear left turn signals, voltage from the BCM 3 for the right front turn signal, while voltage from the BCM 6 fuse is used for the right rear turn signal. When the turn signal switch is place in either the LEFT or RIGHT position, ground is applied through the turn signal switch signal circuit to the BCM indicating the turn signal request. In response to this signal, the BCM applies a pulsating voltage to the front and rear turn signal lamps supply voltage circuits cycling the lamps ON and OFF. The BCM also sends a message via to the instrument panel cluster (IPC) to cycle the turn signal indicator ON and OFF depending on the position of the turn signal switch.

Hazard Lamps

The hazard flashers may be activated in any power mode. When the hazard lamp switch is placed in the ON position, ground is applied through the hazard switch signal circuit to the body control module (BCM) indicating the hazard lamps ON request. In response to this signal, the BCM applies a pulsating voltage though all front and rear turn signal supply voltage circuits cycling the lamps ON and OFF. The BCM also sends a serial data message to the instrument panel cluster (IPC) to cycle both turn signal indicators ON and OFF.

Stop Lamps (cargo/passenger)

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5-volt reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will apply battery voltage to the right and left stop lamp control circuits, transmission control module (TCM), engine control module (ECM), center high mounted stop lamp (CHMSL) control circuit, and trailer brake control module if equipped.

Stop Lamps (cutaway)

The BCM controls the stop lamps based on the input from the stop lamp switch. When the BCM detects the brake pedal is depressed, B+ is applied to the stop lamp relay control circuit energizing the Stop Lamp PCB Relay. With the relay energized, B+ is applied to the stop/turn lamp supply voltage circuits illuminating both stop lamps.

Backup Lamps

When the gear selector is placed in the REVERSE position, the powertrain control module (PCM) sends a serial data message to the BCM indicating the backup lamps ON request. The BCM then applies battery voltage through the backup relay control circuit energizing the BCK/UP LAMP PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the T/LAMP BCK/UP fuse, the AUX/TRLR BCK/UP fuse and the supply voltage circuits illuminating the left and right backup lamps and the backup alarm. The engine may need to be running for the backup lamps to function.

Rear Fog Lamps

The rear fog lamps are located in the rear bumper. The fog lamps will operate only when the ignition in the RUN or CRANK positions. When the rear fog lamp switch is turned ON, ground is applied through the rear fog lamp switch signal circuit to the body control module (BCM) indicating the rear fog lamps ON request. In response to this signal, the BCM applies ground to the rear fog lamp relay control circuit energizing the REAR FOG LP PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the RR FOG LP fuse and the rear fog lamp supply voltage circuit to the left and right rear fog lamps. The BCM sends a serial data message to the instrument panel cluster (IPC) requesting the rear fog lamp indicator be illuminated. The rear fog lamps will deactivate if the headlamps are turned OFF, if the ignition is turned to the OFF position upon a key cycle, or if the driver turns the rear fog lamp switch OFF.

Battery Rundown Protection/ Inadvertent Power

The BCM controls the lighting system through circuits that enable the exterior lamp functions of the park lamps, the head lamps, the fog lamps, and the interior lamps. The BCM will open these enabling circuits 10 minutes after the ignition switch is turned OFF with no lamp switch activity. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this time period, the timer will reset for another 10 minutes.

Interior Lighting Systems Description and Operation

The interior lighting consist of two groups; lamps that may not be manually dimmed (Interior Lamps) and lamps that may be dimmed (Interior Lamps Dimming).

The first group listed below includes lamps that may not be dimmed:

- Front dome/reading lamps
- Middle dome/reading lamps
- Rear dome/reading lamps
- Sunshade Mirror Lamps
- Underhood Lamp

Interior Lamps Features

The interior lamps system features the following functions:

- An illuminated entry feature that illuminates the courtesy lamps when entering the vehicle or activating the remote keyless entry system.
- An illuminated exit feature that illuminates the courtesy lamps when the ignition key has been removed from the ignition.
- An inadvertent power feature that supplies voltage to all interior lamps after the ignition is turned OFF. The inadvertent power feature will deactivate all interior lamps after 10 minutes to prevent battery rundown.
- A theater dimming feature that will slowly dim the interior lamps from full brightness to OFF.
- Individual switches for control of each interior lamp that is not illuminate with the interior lamp switch.

Courtesy Lamps (−YF2/YF7)

When any one of the doors is opened, ground is applied through the door latch door open switch and the door open switch signal circuit to the BCM indicting the door open position. In response to this signal, the BCM then applies battery voltage through the courtesy lamp supply voltage circuits illuminating the courtesy lamps.

Courtesy Lamps (+YF2/YF7)

When any one of the doors is opened, ground is applied through the door latch door open switch and the door open switch signal circuit to the BCM indicting the door open position. In response to this signal, the BCM then applies battery voltage to the courtesy lamp relay control circuit energizing the UPFITTR CTSY LAMPS PCB Relay. With the relay energized. battery voltage is applied through the switch side of the relay and the supply voltage circuits illuminating the courtesy lamps.

Courtesy Lamps Manual Operation

The courtesy lamps can be manually turned ON by the IP dimmer switch. When the dimmer switch is placed in the DOME position, ground is applied through the dimmer switch and the courtesy lamp switch ON signal circuit to the BCM indicating the courtesy lamps ON request. In response to this signal, the BCM then applies battery positive voltage through the courtesy lamp supply voltage circuits illuminating the courtesy lamps listed above. The courtesy lamps ON operation of the dimmer switch will override any BCM operation of the interior lamps already in progress.

Keyless Entry Interior Illumination

When the remote function actuator transmitter is used to unlock the doors, the BCM receives a door-unlock signal. The BCM must have inputs that indicate that the ignition switch is OFF, the courtesy lamp switch is OFF, and all the doors are closed. The BCM will then illuminate the courtesy lamps and will remain illuminated for approximately 25 seconds after the door is closed. If the door locks are activated to the LOCK position, or if the ignition switch is turned to either the RUN or START position, the BCM will turn OFF the courtesy lamps immediately.

Courtesy/Illuminated Exit

The illuminated exit feature will activate the courtesy lamps when the key IN input of the BCM transitions from an active state to an inactive state (removing the ignition key). When the key is removed from the ignition, the key IN input to the BCM becomes inactive. The BCM will illuminate the courtesy lamps for approximately 25 seconds.

Theater Dimming

The theater dimming feature that will slowly dim the interior lamps from full brightness to OFF. The following actions will over ride the theater dimming feature causing the courtesy lamps to deactivate immediately if no other BCM function commands the courtesy lamps ON:

- A transition from active to inactive of the interior lamps switch, turning OFF the interior lamps switch
- A LOCK command from the remote keyless entry system
- A last door closed locking function, locking and closing all the doors

Underhood Compartment Lamp

The BCM supplies battery positive voltage through the inadvertent power courtesy lamps circuit to the underhood compartment lamp. When the hood is opened, the underhood compartment lamp switch closes to ground and the lamp illuminates.

Dome/Reading Lamps

The dome/reading lamp is a duel purpose lamp that can be illuminated two different ways. First, the lamp can be turned ON during courtesy lamp operation as described above. Second, the lamps can be turned ON individually for reading lamp operation by the lamp switch. The BCM supplies battery voltage through the inadvertent power courtesy lamp circuit to the dome/reading lamp for reading lamp operation only.

Sunshade Vanity Mirror Lamps

The BCM supplies battery voltage through the inadvertent power courtesy lamps circuit to the left and right vanity mirror lamps. When the vanity mirror cover on the sunshade is opened, the vanity mirror lamp switch is closed to ground and the lamp illuminates.

Interior Lamps Dimming

The second interior lighting group includes lamps which may be dimmed. This group may use a combination of vacuum fluorescent (VF) illumination, LED illumination and incandescent lamps.

- Headlamp switch
- Tow/haul switch
- Traction control switch
- HVAC control module
- Driver window switch
- Driver power door lock switch
- Auxiliary blower motor switch
- Front passenger window switch
- Front passenger door lock switch
- Front auxiliary HVAC control assembly

- Rear auxiliary HVAC control assembly
- Steering wheel controls
- Inflatable restraint I/P module disable switch
- Driver information center (DIC) display switch
- Radio

When the ignition switch is turned to the RUN position, the instrument panel cluster (IPC), radio VF display, and the HVAC control assembly turns ON at maximum brightness. When the headlamp switch is in the PARK or HEADLAMP ON position, all incandescent and LED back lighting turn ON at the dimming level indicated by the instrument panel (I/P) dimmer switch. The dimmer switch is used to increase and decrease the brightness of the interior backlighting components. The BCM supplies a voltage reference through the I/P dimming voltage reference circuit to the interior lamp dimmer switch, which is part of the headlamp switch. When the dimmer switch is placed in a desired brightness position, reference voltage is applied through the dimmer switch rheostat and the I/P lamps dimmer switch signal circuit to the BCM. The BCM interprets this voltage signal, then applies a pulse width modulated (PWM) voltage through the I/P lamps supply voltage circuits and the LED dimming supply circuit to all related interior backlighting lamps illuminating them to the desired level of brightness.

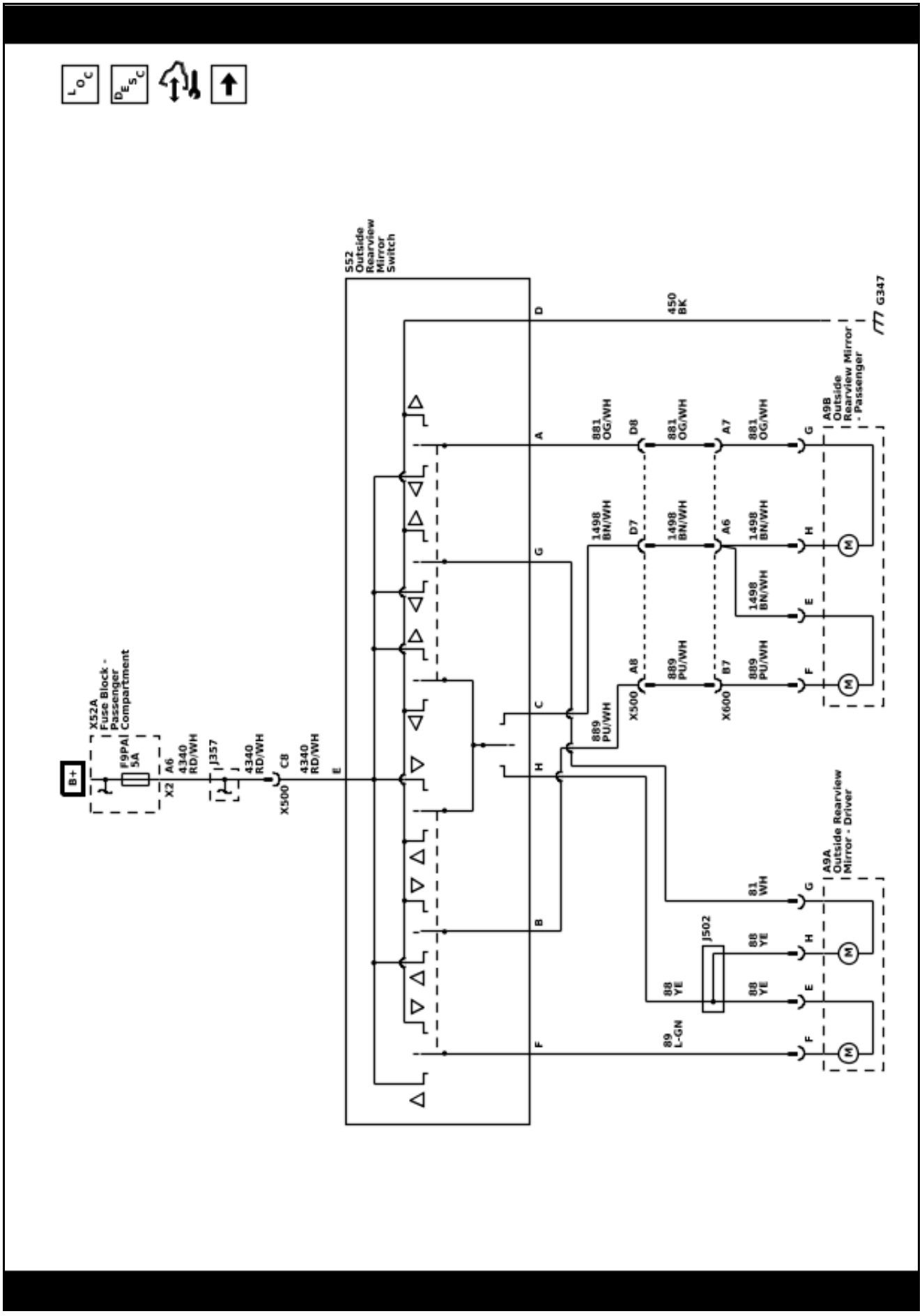
Battery Rundown Protection / Inadvertent Power

The BCM controls the lighting system through circuits that enable the exterior lamp functions of the park lamps, the head lamps, the fog lamps, and the interior lamps. The BCM opens these enabling circuits 10 minutes after the ignition switch is turned OFF with no lamp switch activity. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this time period, the timer resets for another 10 minutes.

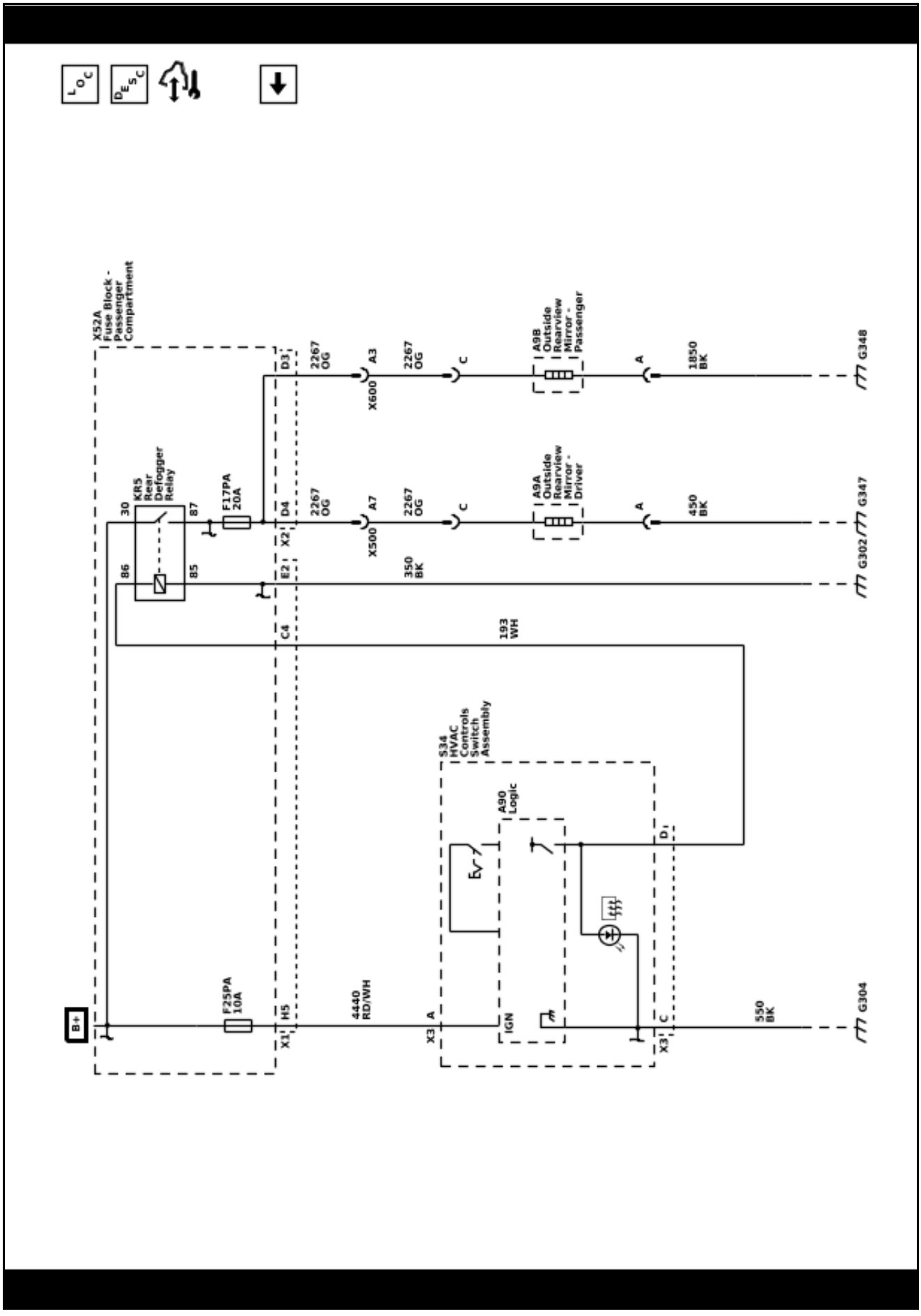
Mirrors

Schematic and Routing Diagrams

Outside Rearview Mirror Schematics (Pan and Tilt (DEB or DE5))



Outside Rearview Mirror Schematics (Heated Mirrors (DEB or DE5))



Description and Operation

Outside Mirror Description and Operation

Outside Mirror System Components

The power mirror system consists of the following components:

- Power mirror switch
- Selector switch
- Left outside power mirror
- Right outside power mirror
- OSRVM 10A fuse
- HVAC control module
- Left outside power mirror
- Right outside power mirror

Each of the outside power mirrors contains two reversible motors. The vertical motor operates the up and down directions and the horizontal motor operates the left and right directions. Each of the power mirror motors are circuit breaker protected.

Power Mirror System Controls

The power mirror switch incorporates a mirror select switch and a four position mirror direction switch.

The mirror select switch allows the operator to select the mirror to be moved by rotating counterclockwise to the L position, left outside power mirror, or rotating clockwise to the R position, right outside power mirror.

The mirror direction switch is a 4 position switch that allows the operator to move the selected mirror up, down, left or right.

Power Mirror System Operation

The power mirror switch receives power through the battery supply voltage circuit and the OSRVM fuse. The power mirror switch also receives a constant ground.

The four positions of the direction switch have dual switch contacts. Each of the contacts are connected to opposing sides of the appropriate power mirror motors through the selector switch. The selector switch interrupts or completes these circuits depending on the position of the selector switch (L or R).

If the selector switch is placed in the L position and the up switch is depressed, battery voltage will be supplied to the left outside power mirror vertical motor through the left mirror motor up direction circuit and return to the power mirror switch through the mirror motor common circuit then to ground and the mirror will move up. If the down switch is depressed, the common circuit supplies battery voltage and the left mirror motor up direction circuit completes the path to the power mirror switch then to ground and the mirror will move down.

The remainder of the mirror functions operate in the same manner as described above. The thing to remember is, that by placing the power mirror switch in opposing positions (left/right or up/down) will reverse the polarity of the mirror motor, utilizing the same circuits and the power mirror will move accordingly.

Heated Mirror System Controls

The heated mirror system is activated by depressing the rear window defogger switch, which is part of the HVAC control module. For further information on the rear window defogger operation, refer to *Rear Window Defogger Description and Operation on page 2-6*.

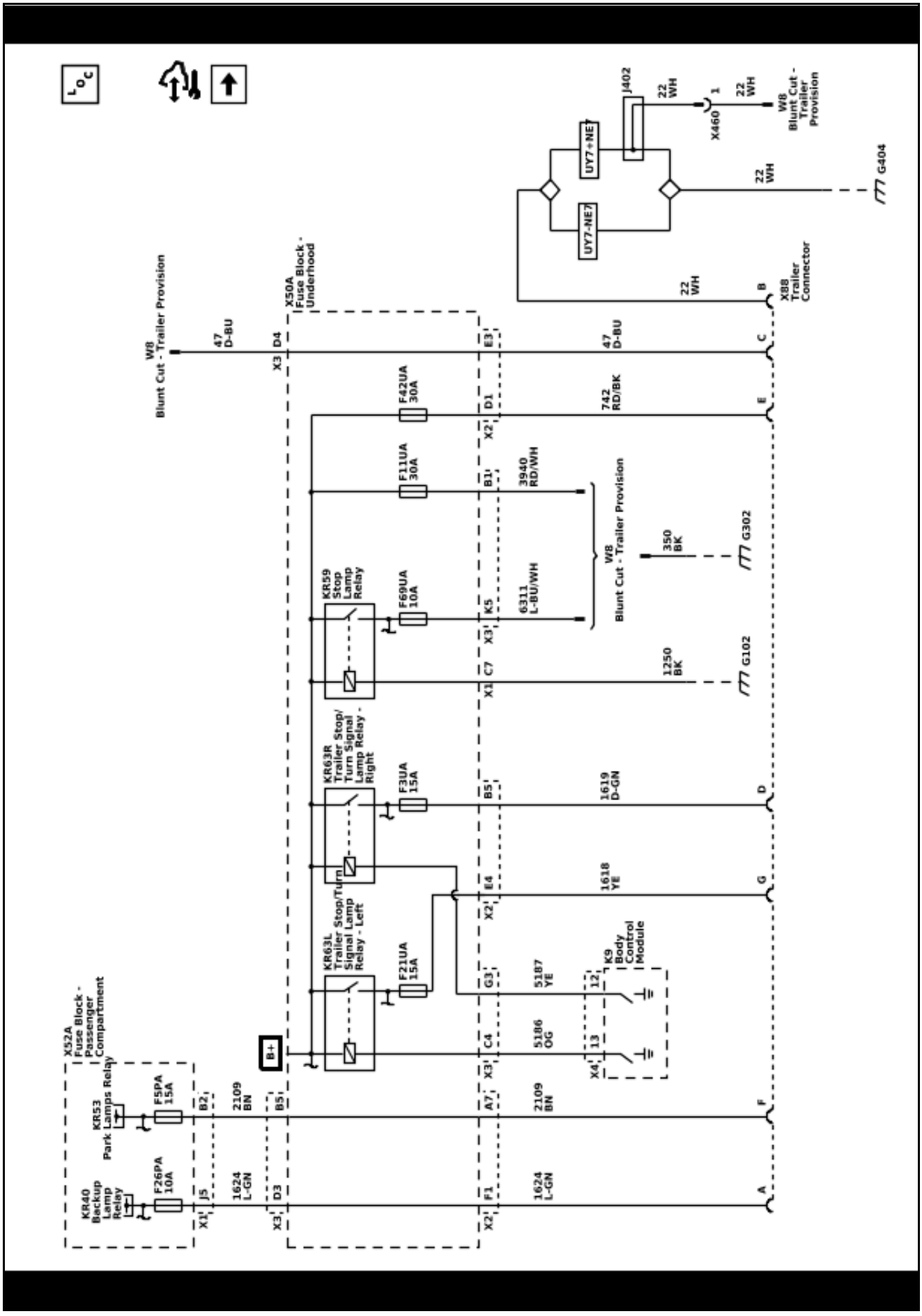
Heated Mirror System Operation

The heated mirror system operates in parallel to the rear window defogger. Each outside rearview mirror contains a heating element that is connected to a constant ground source. When the rear window defogger system is active, battery voltage is available to the outside rearview mirrors through the heated mirror supply voltage circuit. The mirrors will heat up to remove ice, snow or frost and will automatically deactivate when the rear defogger system has timed out, approximately 10 minutes.

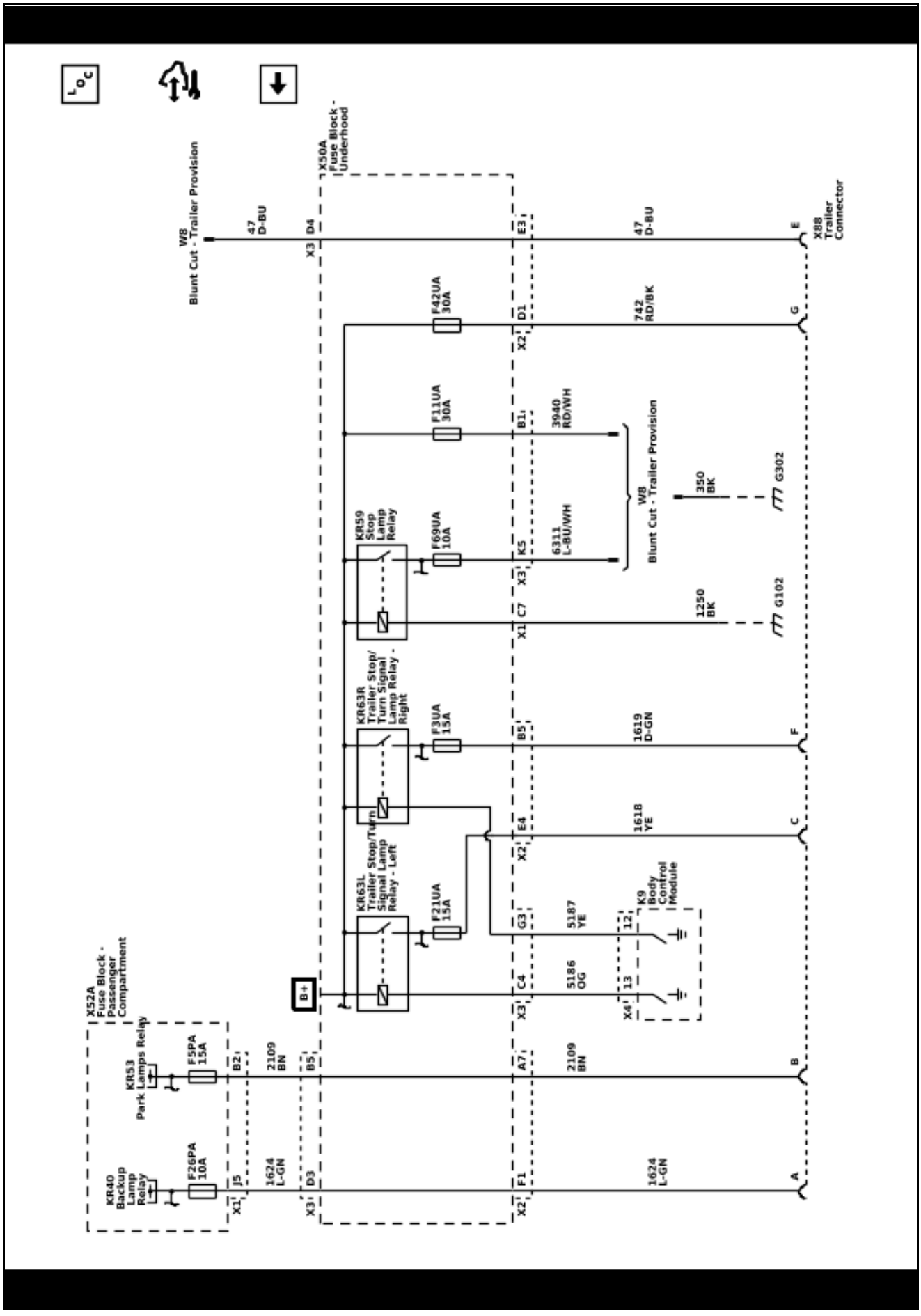
Trailering Systems

Schematic and Routing Diagrams

Trailering Systems Schematics (Trailer Connector/Provision (UY7 without NE7))



Trailering Systems Schematics (Trailer Connector/Provision (UY7 with NE7))



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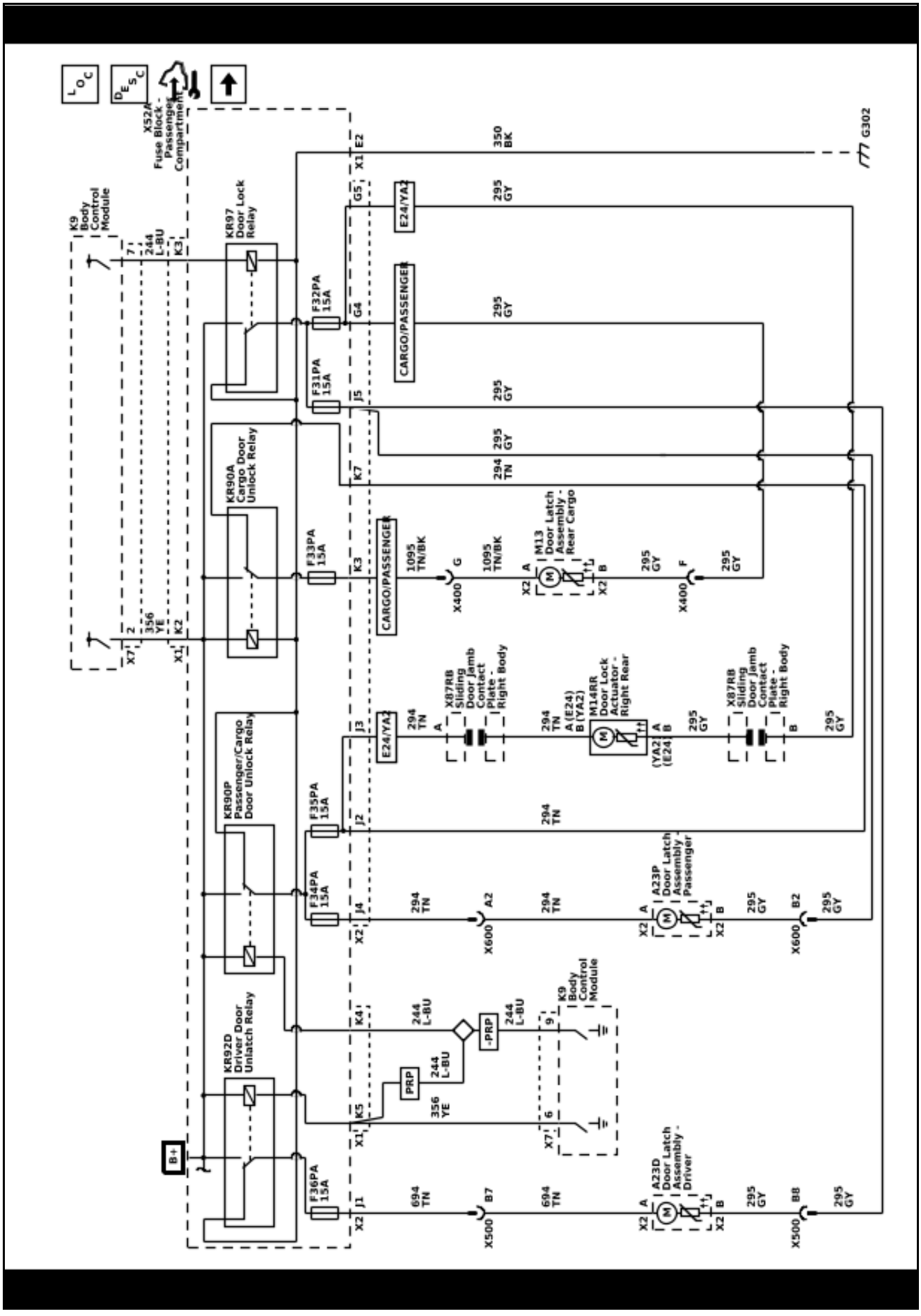
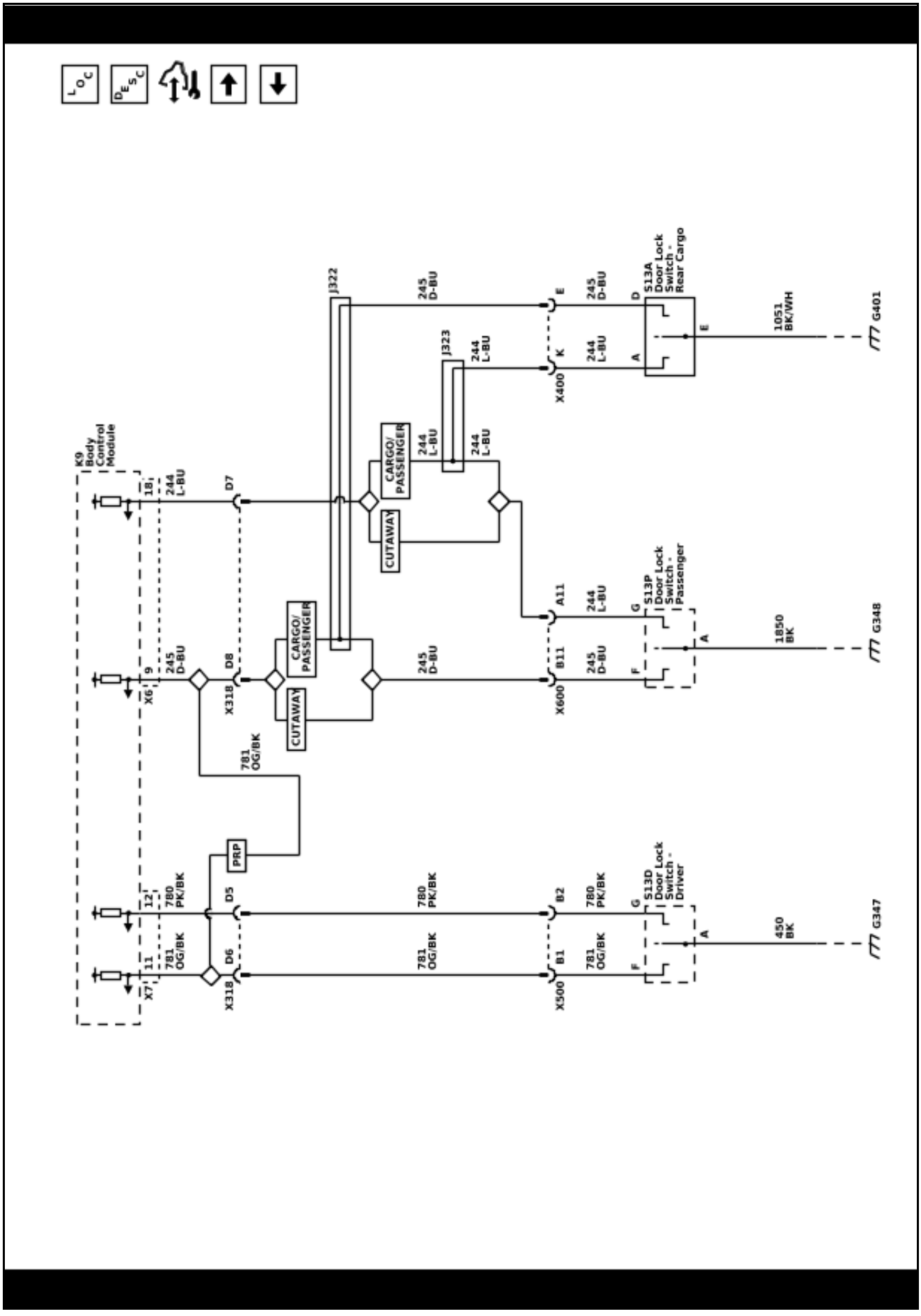
Vehicle Access

Schematic and Routing Diagrams

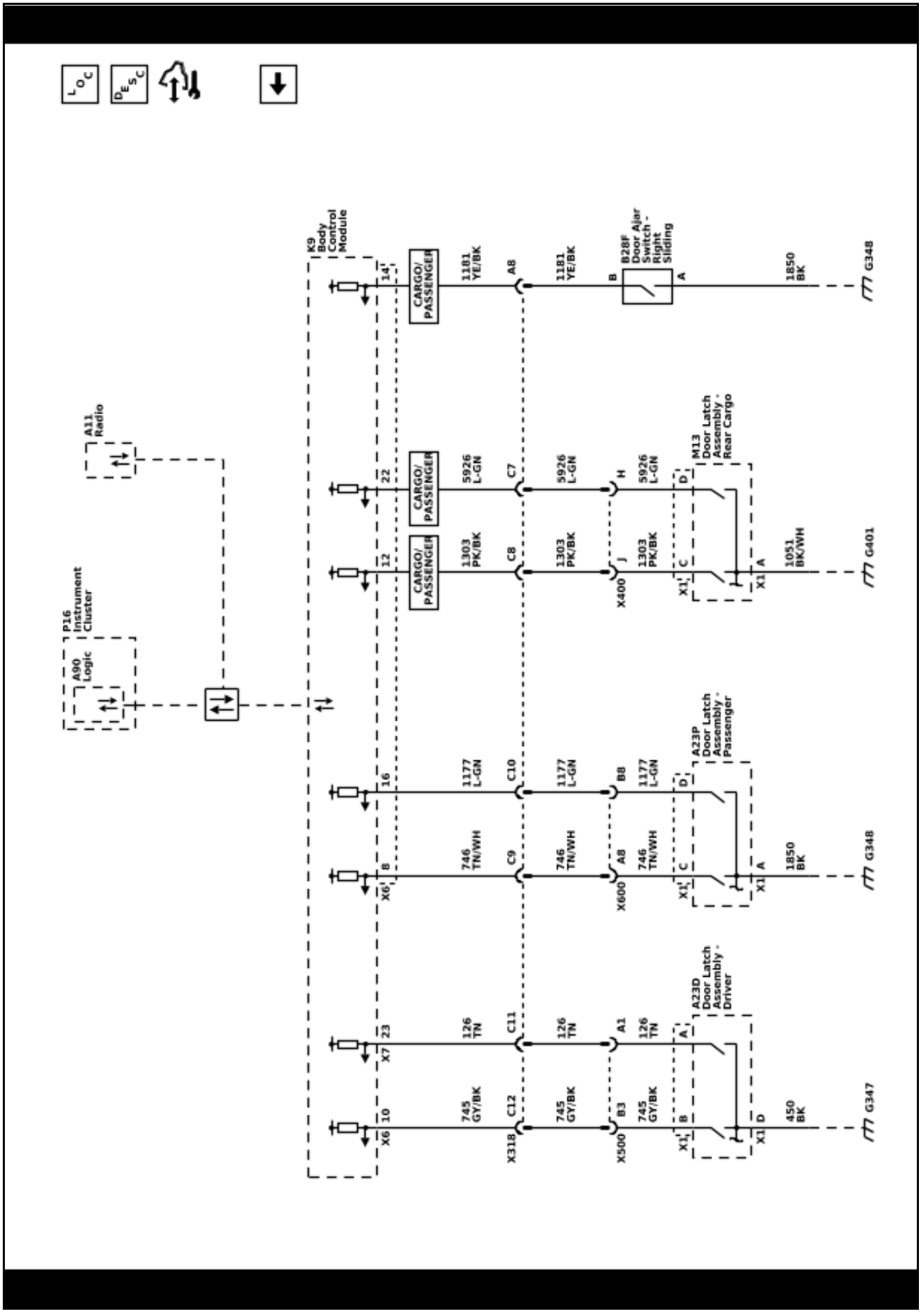
Door Lock/Indicator Schematics (Lock/Unlock Control)



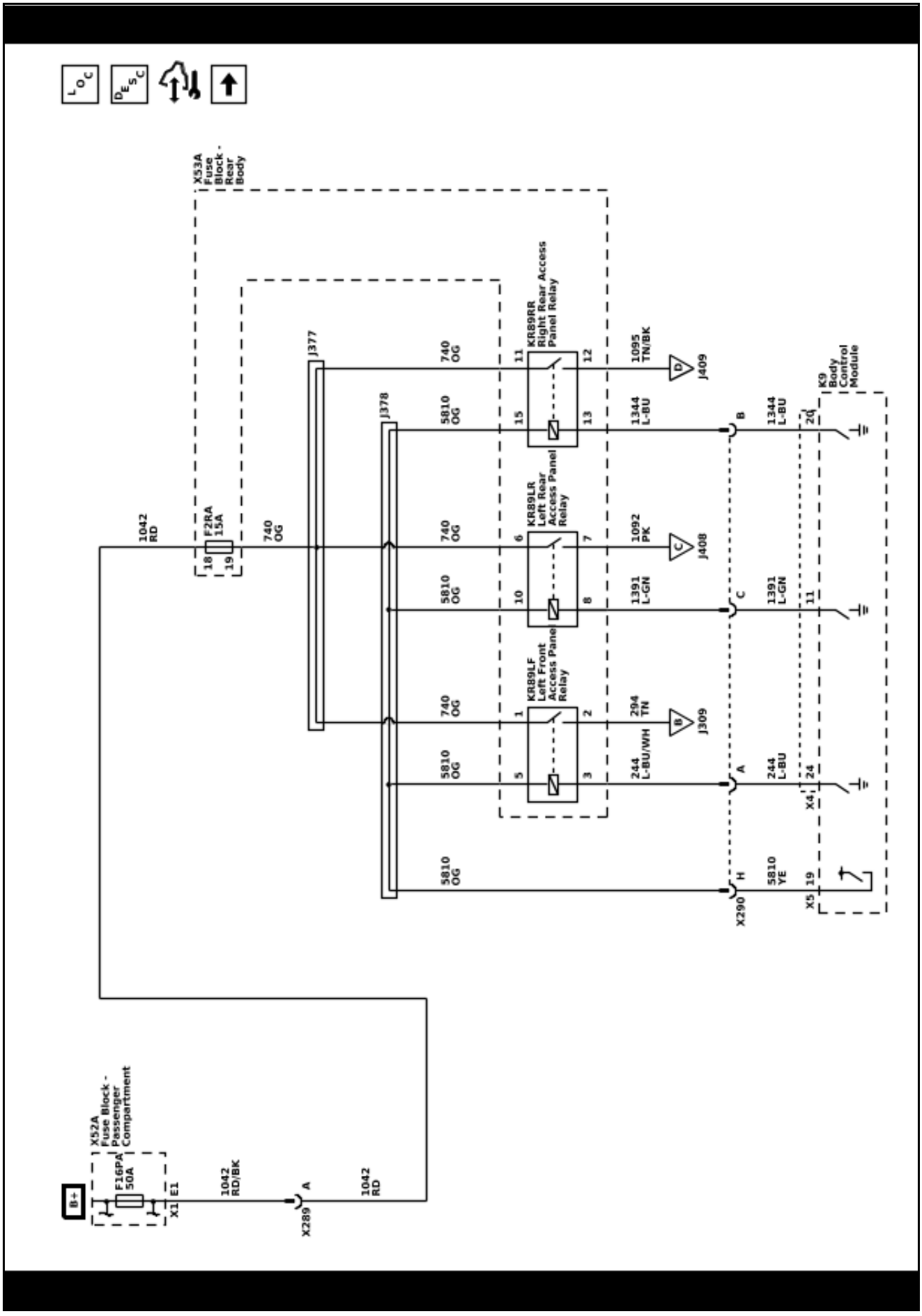
Door Lock/Indicator Schematics (Door Lock Switches (AU3))



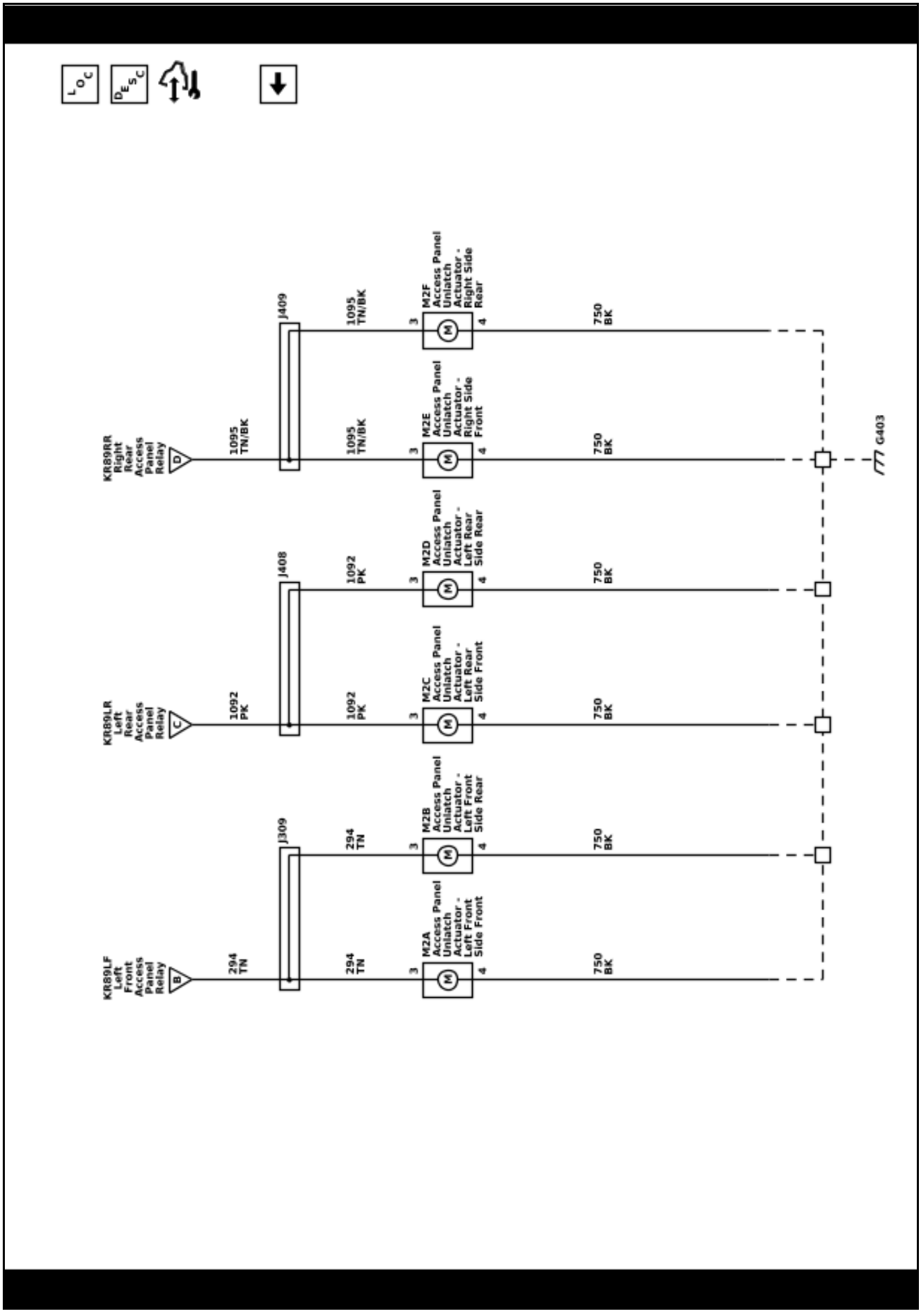
Door Lock/Indicator Schematics (Door Ajar Switches)



Release Systems Schematics (Side Access Panel Relay Controls (PRP))



Release Systems Schematics (Side Access Panel Actuators (PRP))


LOC
DESC
KR89LF Left Front Access Panel Relay
KR89LR Left Rear Access Panel Relay
KR89RR Right Rear Access Panel Relay
B
C
D
294 TN
1092 PK
1095 TN/BK
J309
J408
J409
M2A Access Panel Unlatch Actuator - Left Front Side Front
M2B Access Panel Unlatch Actuator - Left Front Side Rear
M2C Access Panel Unlatch Actuator - Left Rear Side Front
M2D Access Panel Unlatch Actuator - Left Rear Side Rear
M2E Access Panel Unlatch Actuator - Right Side Front
M2F Access Panel Unlatch Actuator - Right Side Rear
750 BK
G403
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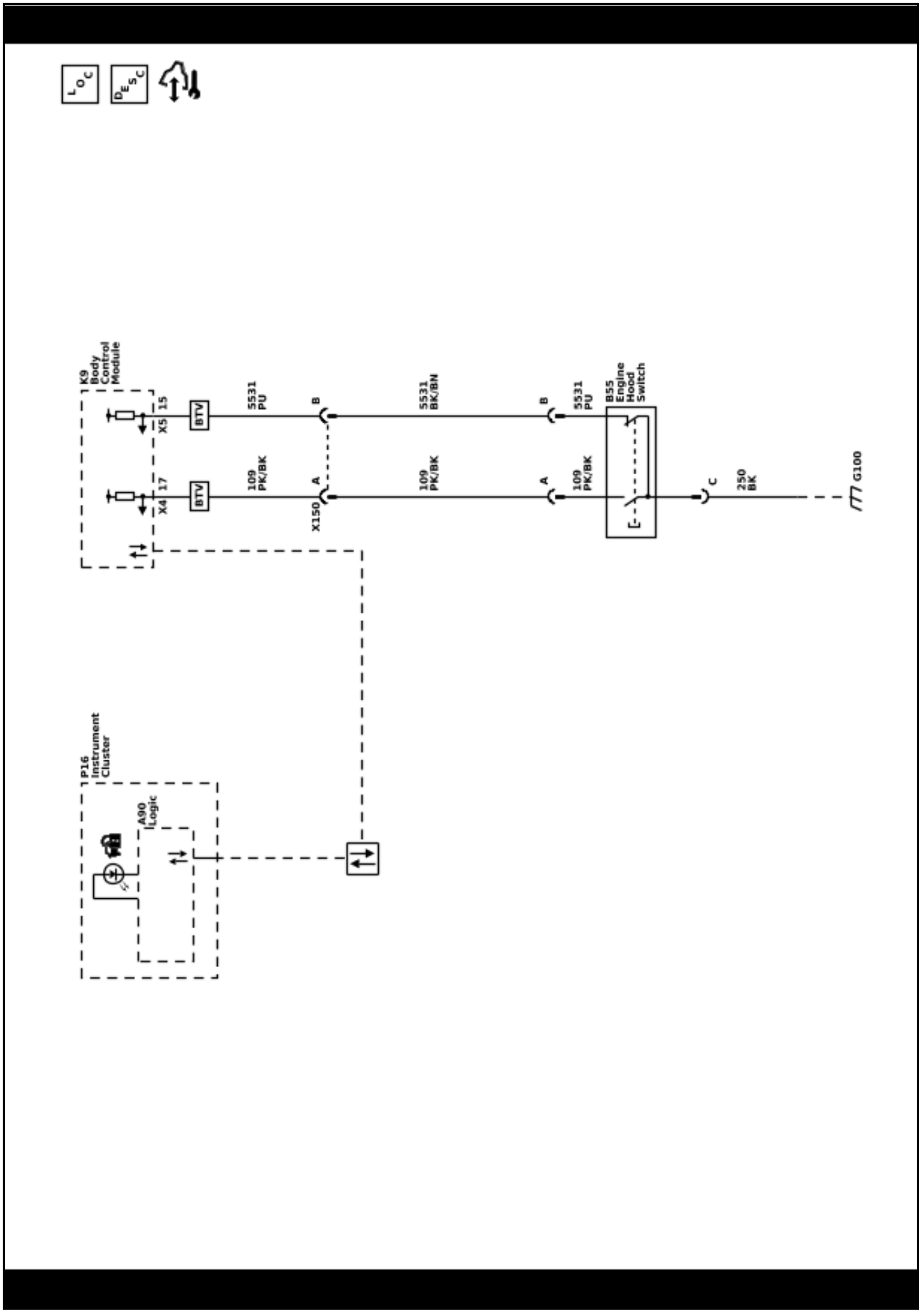
Hood Latch Schematics (Hood Latch)



Description and Operation

Access Panel Description and Operation

The access panel entry system is a supplementary vehicle entry device. Radio frequencies or discharged batteries may disable the system.

The access panel entry system allows you to operate the following components:

- The Left Front Access Panel if equipped
- The Left Rear Access Panel
- The Right Rear Access Panel

Pro/Access models use the key fob to activate up to 3 access panels depending on the cargo door option:

- One access panel on the right side of the vehicle.
- One access panel on the left side of vehicles equipped with left side cargo doors.
- Two access panels on the left side of vehicles not equipped with left side cargo doors.

The access panel entry system has the following main components:

- The transmitters
- The remote control door lock receiver (RCDLR).
- The body control module (BCM).

This vehicle is not equipped with remote keyless entry system (RKE). The transmitter is used exclusively to operate the access panels. When you press any button on a programmed k transmitter, the transmitter sends a signal to the RCDLR. The RCDLR sends a class 2 message to the body control module (BCM) which activates the appropriate access panel relay, releasing the panel.

Rolling Code

The access panel entry system uses rolling code technology. Rolling code technology prevents anyone from recording the message sent from the transmitter and using the message in order to gain entry to the vehicle. The term, rolling code, refers to the way that the keyless entry system sends and receives the signals. The transmitter sends the signal in a different order each time. The transmitter and the RCDLR are synchronized to the appropriate order. If a programmed transmitter sends a signal that is not in the order that the RCDLR expects, then the transmitter is out of synchronization. This occurs after 256 presses of any transmitter button when it is out of range of the vehicle.

Door Ajar Indicator Description and Operation

Door Ajar Indicator System Components

The door ajar indicator system consists of the following components:

- The body control module (BCM)
- The instrument panel cluster (IPC)
- The driver information center (DIC)
- The door ajar switch

Door Ajar Operation

The body control module (BCM) receives a discrete input from the door ajar switch to indicate the status of the door. The BCM then communicates this status to the instrument panel cluster (IPC) via GMLAN serial data. The IPC, upon receipt of this message, will illuminate the door ajar message in the driver information center (DIC) and also send a GMLAN serial data message to the radio to activate the door ajar audible warning when the following conditions are met:

- The transmission is shifted out of PARK.
- The vehicle speed is greater than 8 km/h (5 mph).

Hood Ajar Indicator Description and Operation

Hood Ajar Switch

The hood ajar switch provides closure status of the hood to the body control module (BCM) and on vehicles equipped with any hybrid drivetrain or start stop technology a power train module. The switch is integrated into the hood latch assembly. The BCM, and other module if equipped, monitor the voltage on their circuit as it passes through the different positions of the hood switch.

The BCM uses the hood ajar switch as a content theft deterrent alarm trigger.

Hood Ajar Indicator/Message

When the hood is ajar, a message is displayed on the driver information center (DIC) or the hood ajar indicator will be illuminated.

Power Door Locks Description and Operation

Door Lock System Components

The power door lock system consists of the following components:

- Driver door lock switch
- Front passenger door lock switch
- Rear cargo door lock switch
- Door lock relay
- Passenger door unlock relay
- Driver door unlock relay
- Cargo door unlock relay
- Body Control Module (BCM)
- Reversible door lock actuators in each of the doors
- DRV LKS 10A fuse, driver door unlock relay supply voltage
- CARGO UNLK 10A fuse, cargo door unlock relay supply voltage
- DOOR LKS 20A fuse, door lock relay and passenger door unlock relay supply voltage

Door Lock System Controls

The power door lock system can be controlled by any of the following:

- A power door lock or unlock switch activation
- A keyless entry transmission
- A lock out prevention function
- A last door locking function

Driver, Passenger and Cargo Door Lock Operation

When any of the door lock switches are placed in the lock position, a ground signal is applied to the BCM through the door lock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the door lock relay through the door lock relay control circuit. Since the other side of the door lock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DOOR LKS fuse through the battery voltage circuit. Voltage is then applied to the lock side of the door lock actuators through the door lock actuator lock circuits. Since the other side of the all the door lock actuators are connected to the normally closed contacts of their respective unlock relays to ground, the doors lock.

The lock function can also be accomplished by the BCM supplying ground to the door lock relay control circuit by either of the following:

- A keyless entry lock transmission
- A last door lock function

Driver Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the driver door unlock relay through the driver door unlock relay control circuit. Since the other side of the driver door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DRV LKS fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the driver door lock actuator through the driver door lock actuator unlock control circuit. Since the other side of the the driver door lock actuator is connected to the normally closed contacts of the door lock relay to ground, the driver door unlocks.

The driver door unlock function can also be accomplished by the BCM supplying ground to the driver door unlock relay control circuit by either of the following:

- A keyless entry unlock transmission
- A lock out prevention function

Passenger Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the passenger door unlock relay through the door unlock relay control circuit. Since the other side of the door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DOOR LKS fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the passenger door lock actuators through the door lock actuator unlock control circuits. Since the other side of the the door lock actuators are connected to the normally closed contacts of the door lock relay to ground, the passenger doors unlock.

The door unlock function can also be accomplished by the BCM supplying ground to the passenger door unlock relay control circuit during a keyless entry unlock transmission.

Cargo Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the cargo door unlock relay through the cargo door unlock relay control circuit. Since the other side of the cargo door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the CARGO UNLK fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the cargo door lock actuator through the door lock actuator unlock control circuit. Since the other side of the the cargo door lock actuator is connected to the normally closed contacts of the door lock relay to ground, the cargo door unlocks.

The cargo door unlock function can also be accomplished by the BCM supplying ground to the cargo door unlock relay control circuit during a keyless entry unlock transmission.

Delay Locking Operation

This feature allows the operator to lock all the doors from a door lock switch with the side doors(s) open. The side cargo doors have contact plates that complete the power door lock and unlock control circuits, among others, when the side cargo doors are closed, and interrupt these circuits when the doors are open. When a lock function occurs and the BCM senses an active state on any door ajar switch signal circuit the driver, front passenger and cargo doors will lock as described. The BCM continues to monitor door ajar switch signal circuits. When the BCM senses an inactive state, door closed, the BCM will cycle the door lock relay again after approximately 5 seconds to perform another lock function, thus locking the side cargo door(s).

Lockout Prevention

This feature prevents the locking of the driver door if the ignition key is left in the ignition lock cylinder. If a lock function occurs from any door lock switch and the BCM senses a door ajar and the key in ignition switch signal circuit is in the yes state, the BCM will cycle the door lock relay to lock the doors and then cycle the driver door unlock relay to unlock the driver door.

Section 3

Driver Information and Entertainment

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Description and Operation 3-5
Rear Vision Camera Description and Operation 3-5

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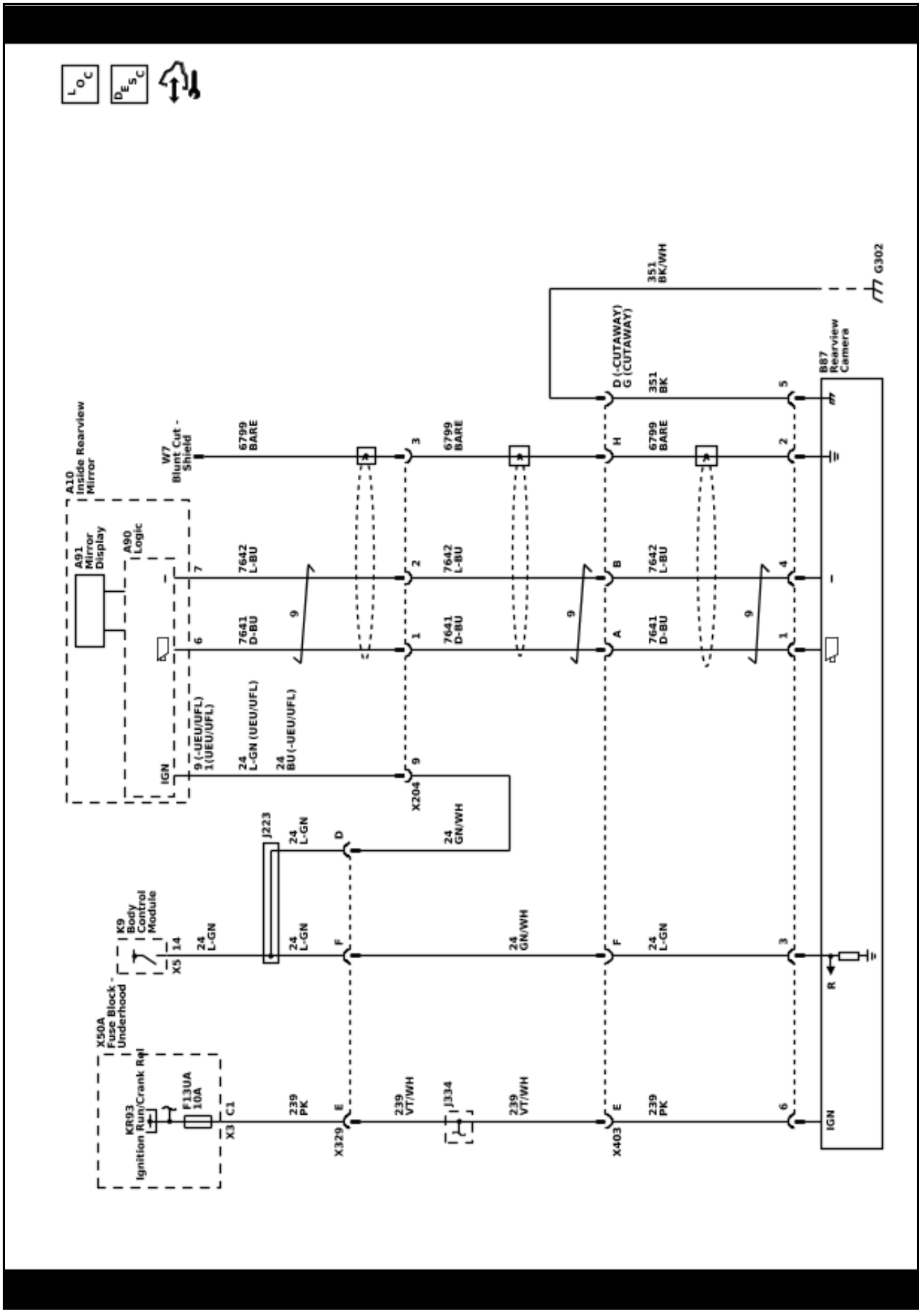
Image Display Cameras

Schematic and Routing Diagrams

Image Display Camera Schematics (Rear Vision Camera (UVC))



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Description and Operation

Rear Vision Camera Description and Operation

The rear vision camera system consists of the rearview camera and the infotainment system.

When the transmission is placed into R, 12 V is applied to the reverse lamp control circuit by the body control module (BCM). The rearview camera monitors this circuit and when 12 V is seen, indicating that the transmission is in R, the rearview camera will activate. The rearview camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rearview camera to the infotainment system. Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and cause a degraded video image. The shield is grounded by the rearview camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

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Section 4

Engine/Propulsion

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Battery Description and Operation 4-11
Charging System Description and Operation . . . 4-11
Electrical Power Management Description and Operation (Gasoline) 4-15
Electrical Power Management Description and Operation (Diesel) 4-16
Starting System Description and Operation 4-17

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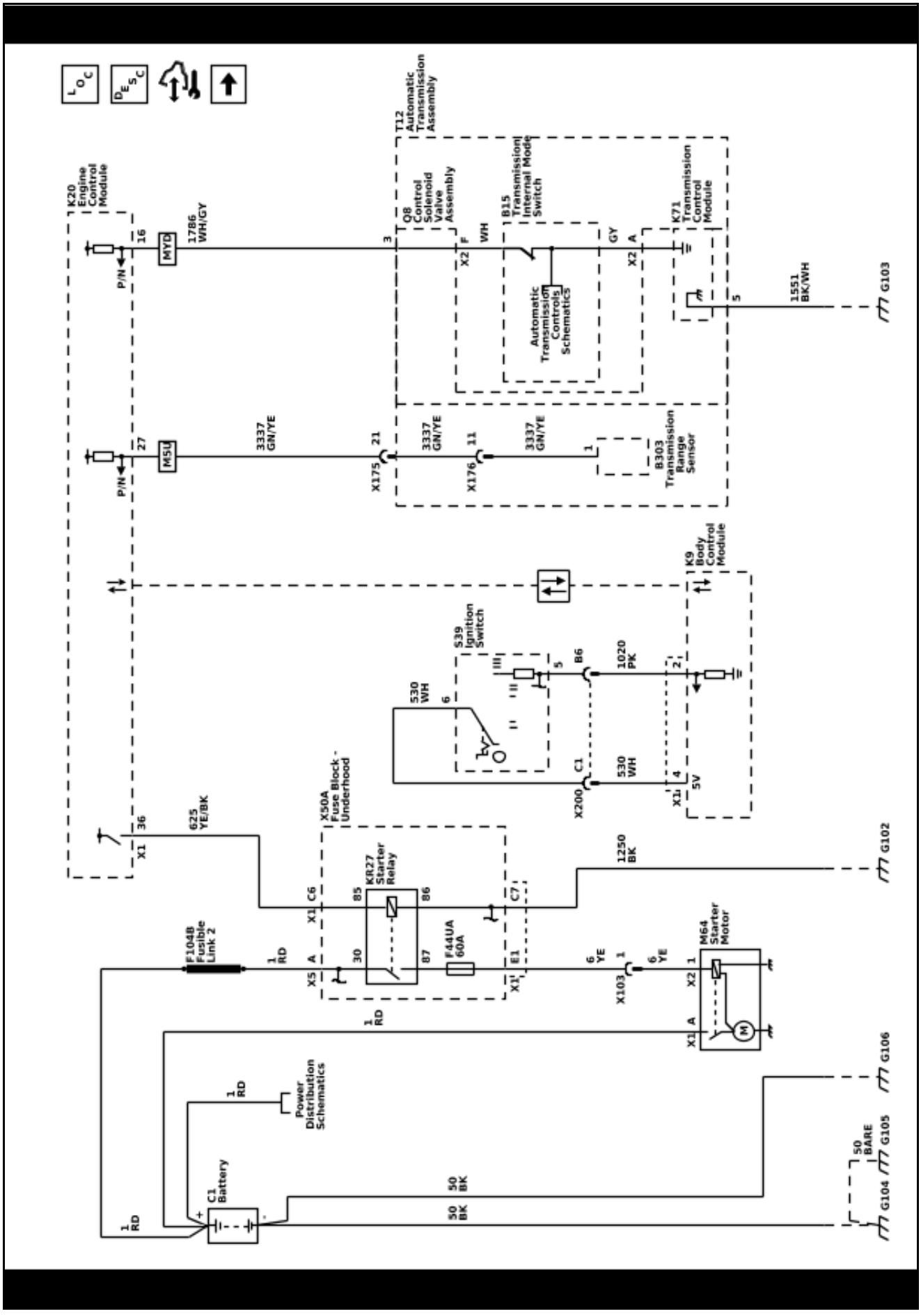
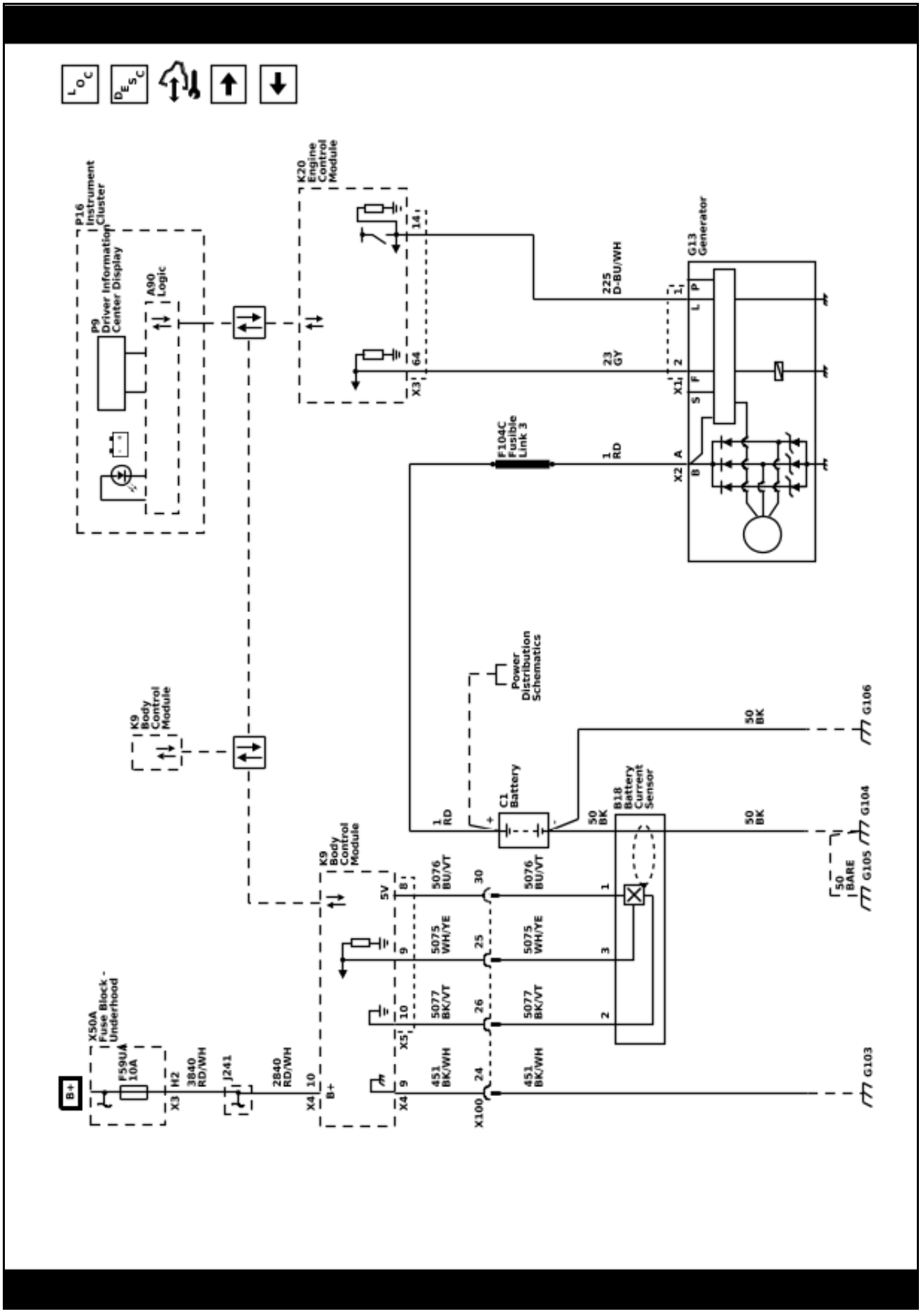
12 V Starting and Charging

Schematic and Routing Diagrams

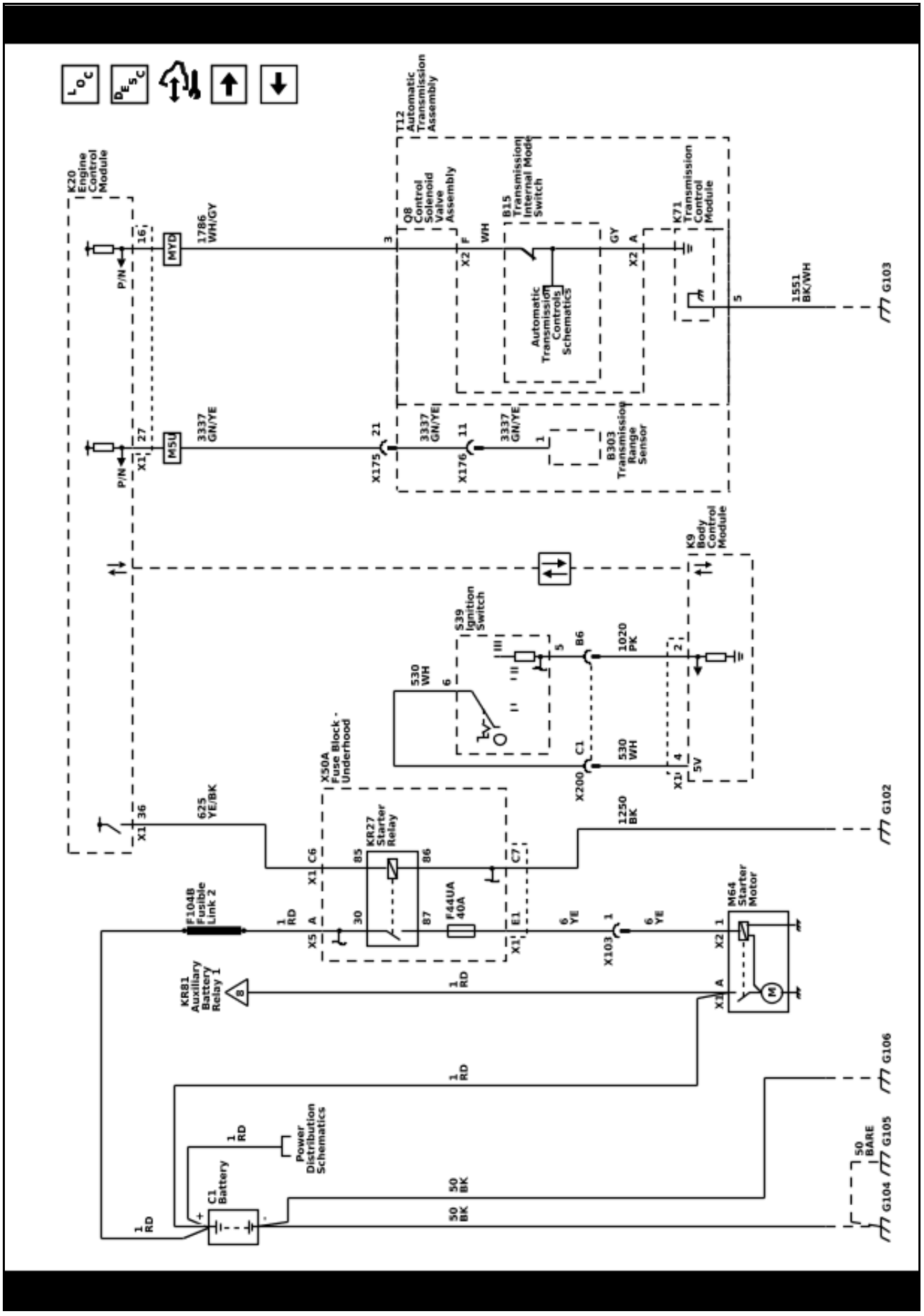
Starting and Charging Schematics (Starting System (Gas with One Battery))



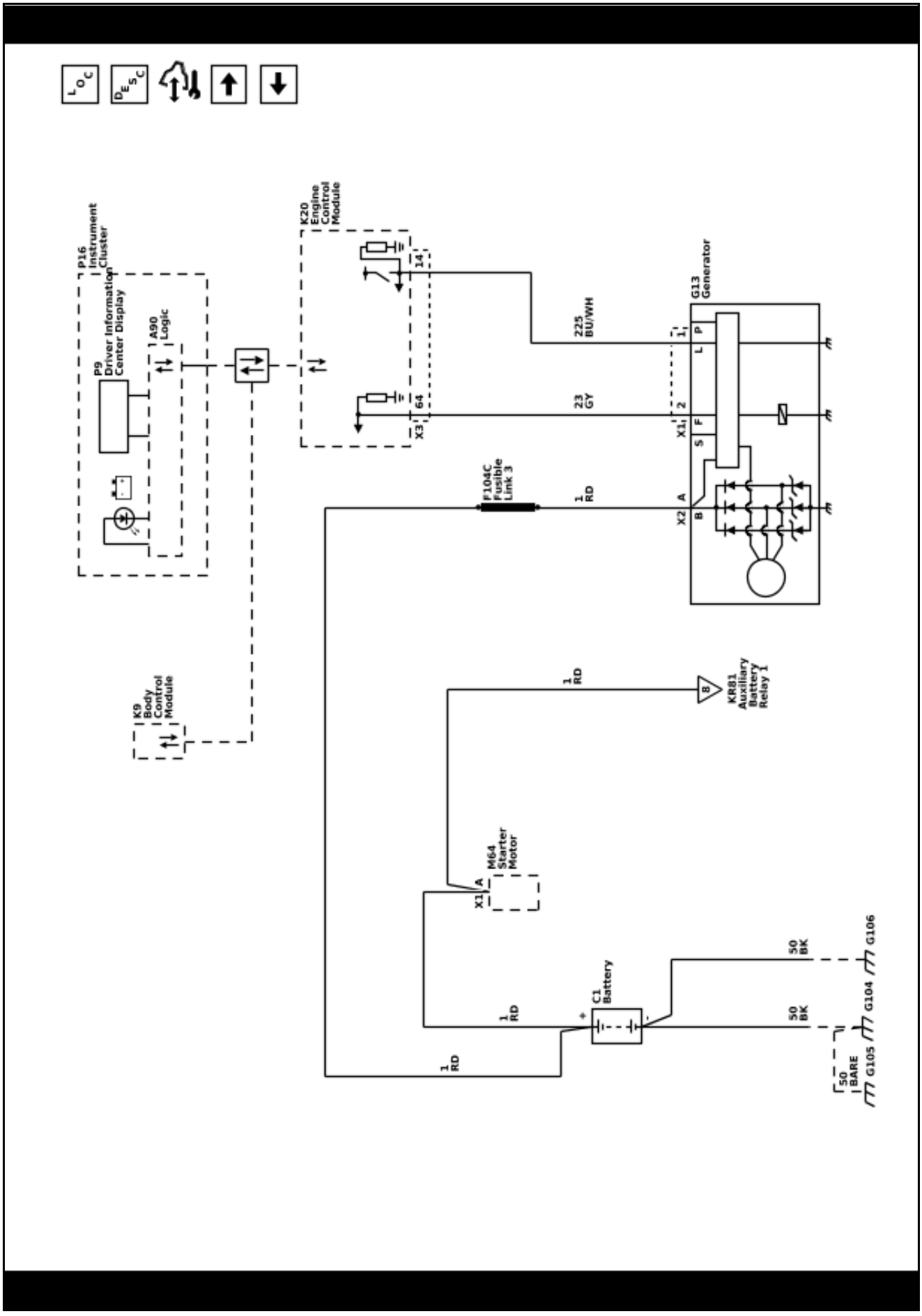
Starting and Charging Schematics (Charging System (Gas with One Battery))



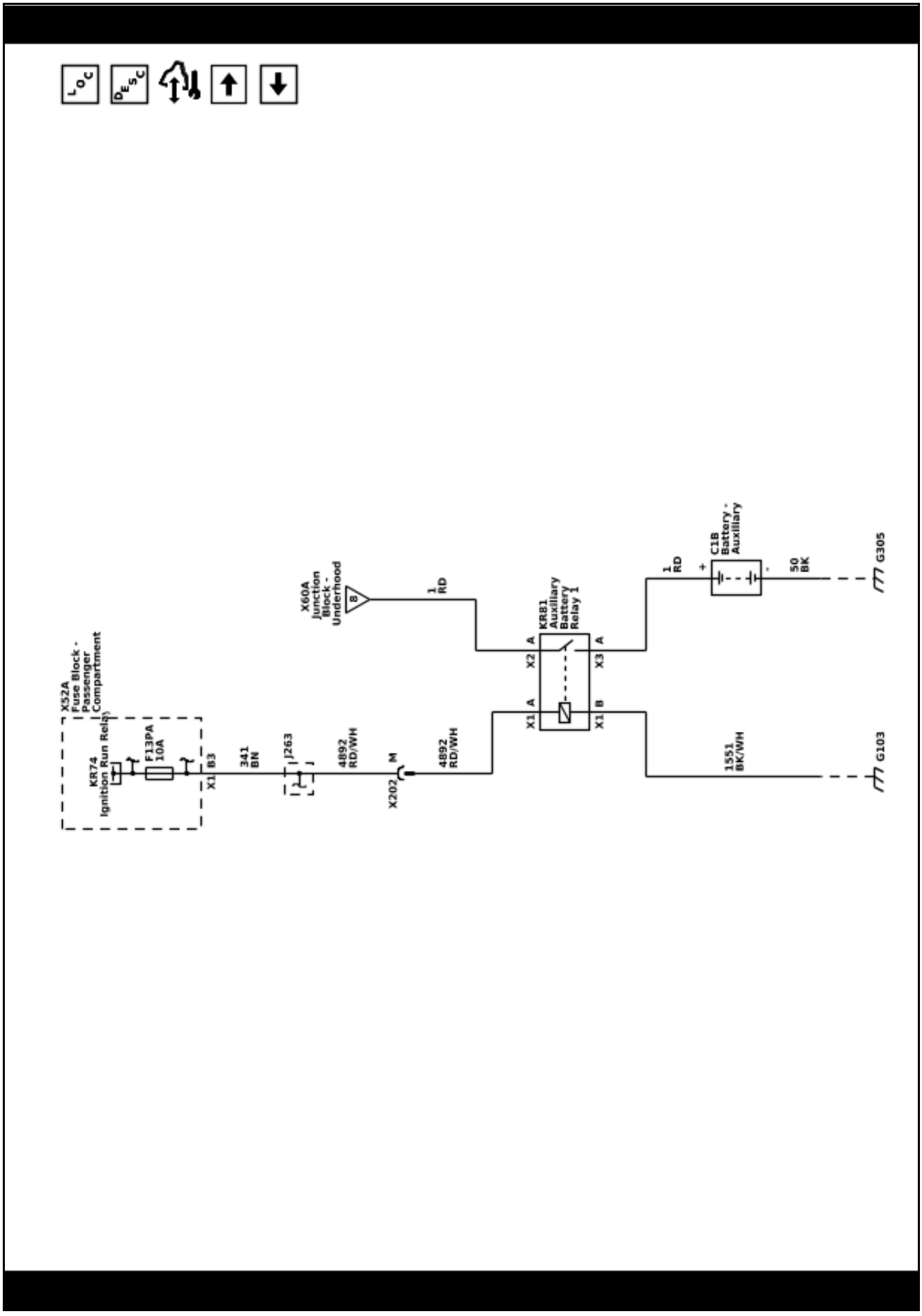
Starting and Charging Schematics (Starting System (Gas with Two Batteries))



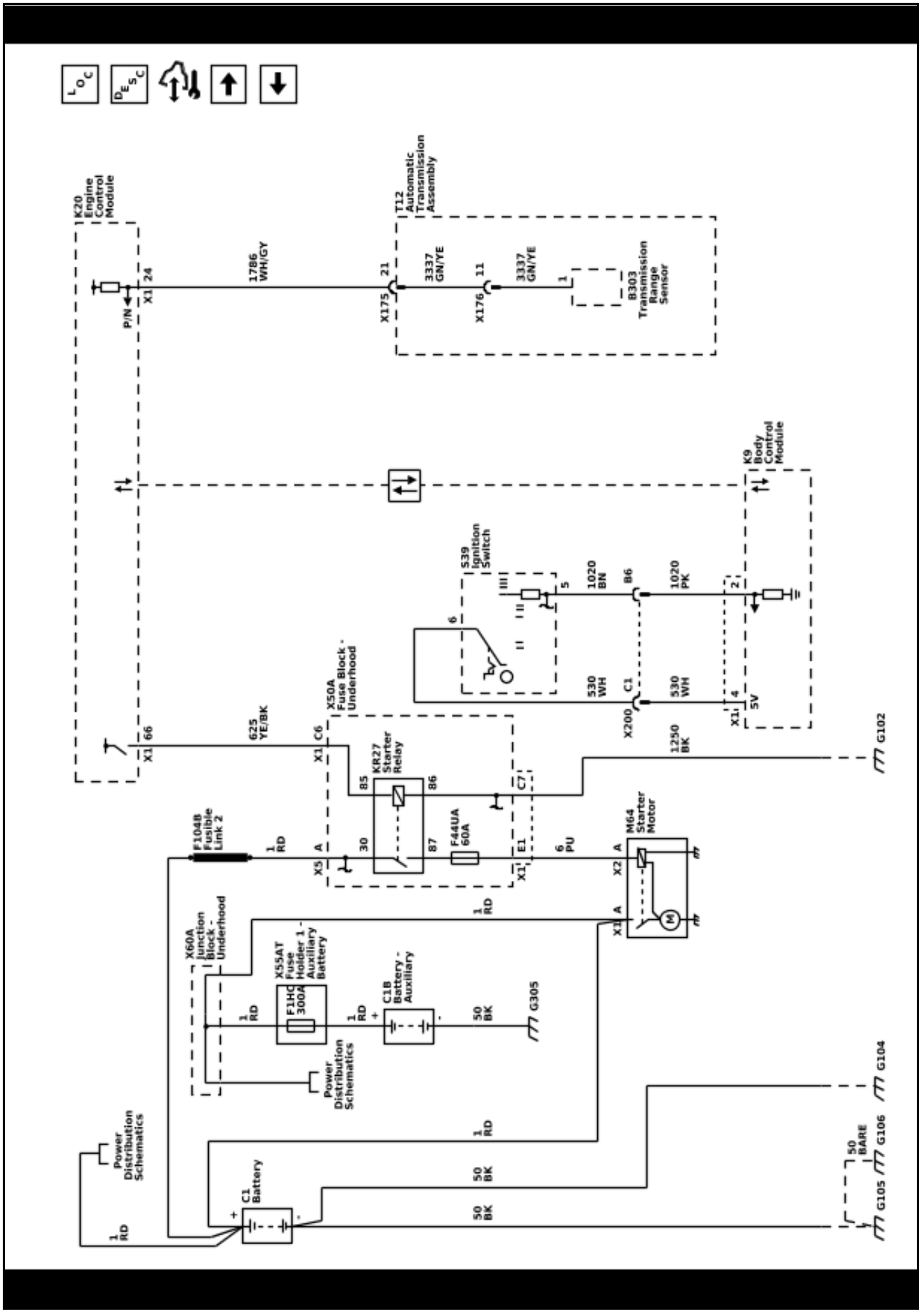
Starting and Charging Schematics (Charging System (Gas with Two Batteries))



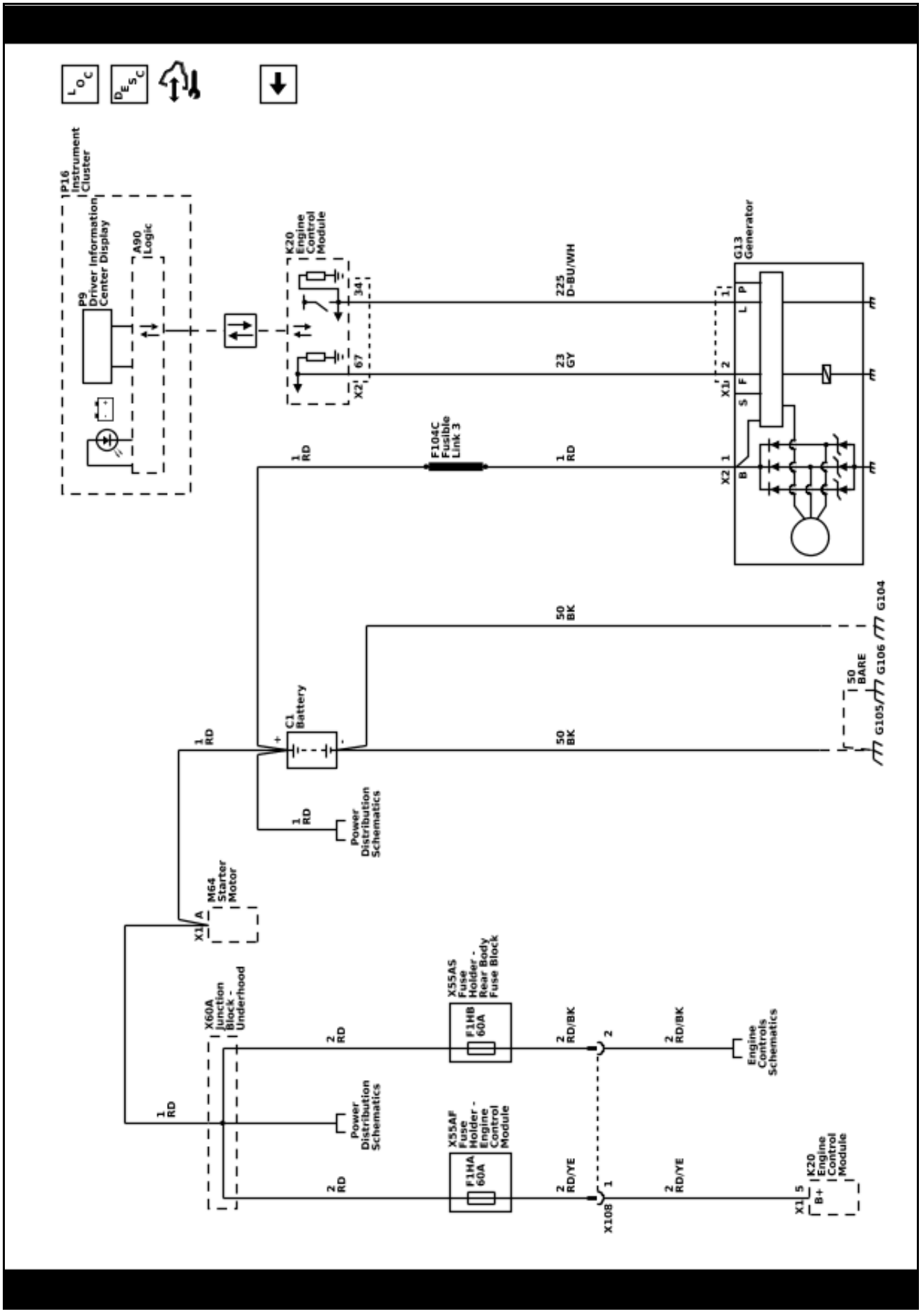
Starting and Charging Schematics (Auxiliary Battery Relay and Auxiliary Battery (Gas with Two Batteries))



Starting and Charging Schematics (Starting System (Diesel))



Starting and Charging Schematics (Charging System (Diesel))



Description and Operation

Battery Description and Operation

Warning: Batteries produce explosive gases, contain corrosive acid, and supply levels of electrical current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- ***Always shield your eyes and avoid leaning over the battery whenever possible.***
- ***Do not expose the battery to open flames or sparks.***
- ***Do not allow the battery electrolyte to contact the eyes or the skin. Flush immediately and thoroughly any contacted areas with water and get medical help.***
- ***Follow each step of the jump starting procedure in order.***
- ***Treat both the booster and the discharged batteries carefully when using the jumper cables.***

Batteries that are no longer wanted must be disposed of by an approved battery recycler and must never be thrown in the trash or sent to a landfill.

Batteries that are not part of the vehicle itself, not the battery under the hood, must only be transported on public streets for business purposes via approved hazardous material transportation procedures.

Battery storage, charging and testing facilities in repair shops must meet various requirements for ventilation, safety equipment, material segregation, etc.

The maintenance free battery is standard. There are no vent plugs in the cover. The battery is completely sealed except for 2 small vent holes in the side. These vent holes allow the small amount of gas that is produced in the battery to escape.

The battery has 3 functions as a major source of energy:

- Engine cranking
- Voltage stabilizer
- Alternate source of energy with generator overload

Battery Low Start Vehicle Message

The body control module (BCM) monitors battery positive voltage to determine battery state of charge. If one or more of the BCM battery positive voltage terminals measure less than approximately 11.6V compared to the BCM ground circuits, this message will display and four chimes may sound. Start the vehicle immediately. If the vehicle is not started and the battery continues to discharge, the climate controls, heated seats, and audio systems will shut off and the vehicle may require a jump start. These systems will function again after the vehicle is started.

Battery Ratings

A battery has 2 ratings:

- Cold cranking amperage
- Amperage hours

When a battery is replaced use a battery with similar ratings. See battery specification label on the original battery.

Amperage Hours

The amperage hour rating tells you how much amperage is available when discharged evenly over a 20 hour period. The amperage hour rating is cumulative, so in order to know how many constant amperage the battery will output for 20 h, you have to divide the amperage hour rating by 20. Example: If a battery has an amperage hour rating of 74, dividing by 20 = 3.75. Such a battery can carry a 3.75 A load for 20 hours before dropping to 10.5 V. (10.5 V is the fully discharged level, at which point the battery needs to be recharged.) A battery with an amperage hour rating of 55 will carry a 2.75 A load for 20 hours before dropping to 10.5 V.

Cold Cranking Amperage

The cold cranking amperage is an indication of the ability of the battery to crank the engine at cold temperatures. The cold cranking amperage rating is the minimum amperage the battery must maintain for 30 seconds at −18°C (0°F) while maintaining at least 7.2 V. See battery label for the cold cranking amperage rating of this battery.

Charging System Description and Operation

Electrical Power Management Overview

The electrical power management system is designed to monitor and control the charging system and send diagnostic messages to alert the driver of possible problems with the battery and generator. This electrical power management system primarily utilizes existing on-board computer capability to maximize the effectiveness of the generator, to manage the load, improve battery state-of-charge and life, and minimize the system's impact on fuel economy. The electrical power management system performs 3 functions:

- Monitor the battery voltage and estimate the battery condition
- Take corrective actions by boosting idle speeds, and adjusting the regulated voltage
- Perform diagnostics and driver notification

The battery condition is estimated during ignition/vehicle off and during ignition/vehicle on. During ignition/vehicle off the state-of-charge of the battery is determined by measuring the open-circuit voltage. The state-of-charge is a function of the acid concentration and the internal resistance of the battery, and is estimated by reading the battery open circuit voltage when the battery has been at rest for several hours.

Any time the ignition/vehicle is on, the vehicle algorithm continuously estimates battery state-of-charge based on adjusted net amp hours, battery capacity, initial state-of-charge, and calculated temperature.

While the engine is running, the battery degree of discharge is primarily determined by the integrated battery current sensor, to obtain net amp hours.

In addition, the electrical power management function is designed to perform regulated voltage control to improve battery state-of-charge, battery life, and fuel economy. This is accomplished by using knowledge of the battery state-of-charge and temperature to set the charging voltage to an optimum battery voltage level for recharging without detriment to battery life.

Charging System Components

Generator

The engine drive belt drives the generator. When the rotor is spun, it induces an alternating current (AC) into the stator windings. The AC voltage is then sent through a series of diodes for rectification. The rectified voltage has been converted into a direct current (DC) for use by the vehicles electrical system to maintain electrical loads and the battery charge. The voltage regulator integral to the generator controls the output of the generator; It is not serviceable. The voltage regulator controls the amount of current provided to the rotor. If the generator has field control circuit fault, the generator defaults to an output voltage of 13.8 V.

The generator is serviced as a complete assembly. If there is a diagnosed fault in the generator, it must be replaced as an assembly.

Generator Pulley

The pulley drives the Generator via the engine drive belt. There are 2 types of pulleys:

1. Conventional solid Pulley which is bolted to the Generator stator shaft. This Pulley can be serviced separately.

2. One Way Clutch Pulley or Overrunning Alternator Decoupler Pulley allows the Generator to spin freely when the engine rapidly slows down on sudden deceleration. This part is not serviceable and the Generator needs to be replaced as an assembly.

Body Control Module (BCM)

The BCM communicates with the Engine Control Module (ECM) and the instrument cluster for electrical power management operation. The BCM determines the output of the generator and sends the information to the ECM for control of the generator turn on signal circuit. It monitors the generator field duty cycle signal circuit information sent from the ECM for control of the generator. It monitors the battery current sensor, the battery positive voltage circuit, and estimates battery temperature to determine battery state of charge. The BCM also performs idle boost.

Battery Current Sensor (if applicable)

The Battery Current Sensor is a serviceable component that is connected to the negative battery cable at the battery. The battery current sensor is a 3-wire hall effect current sensor. The battery current sensor monitors the battery current. It directly inputs to the BCM. It creates a 5 volt Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. Between 0–5% and 95–100% are for diagnostic purposes.

Battery Sensor Module (if applicable)

The BCM monitors the Battery Sensor Module for battery state of current, state of health, and battery charge via serial data. If the battery is determined to be in poor state of health or having a low state of charge, the BCM will not allow the ECM to perform an auto-stop.

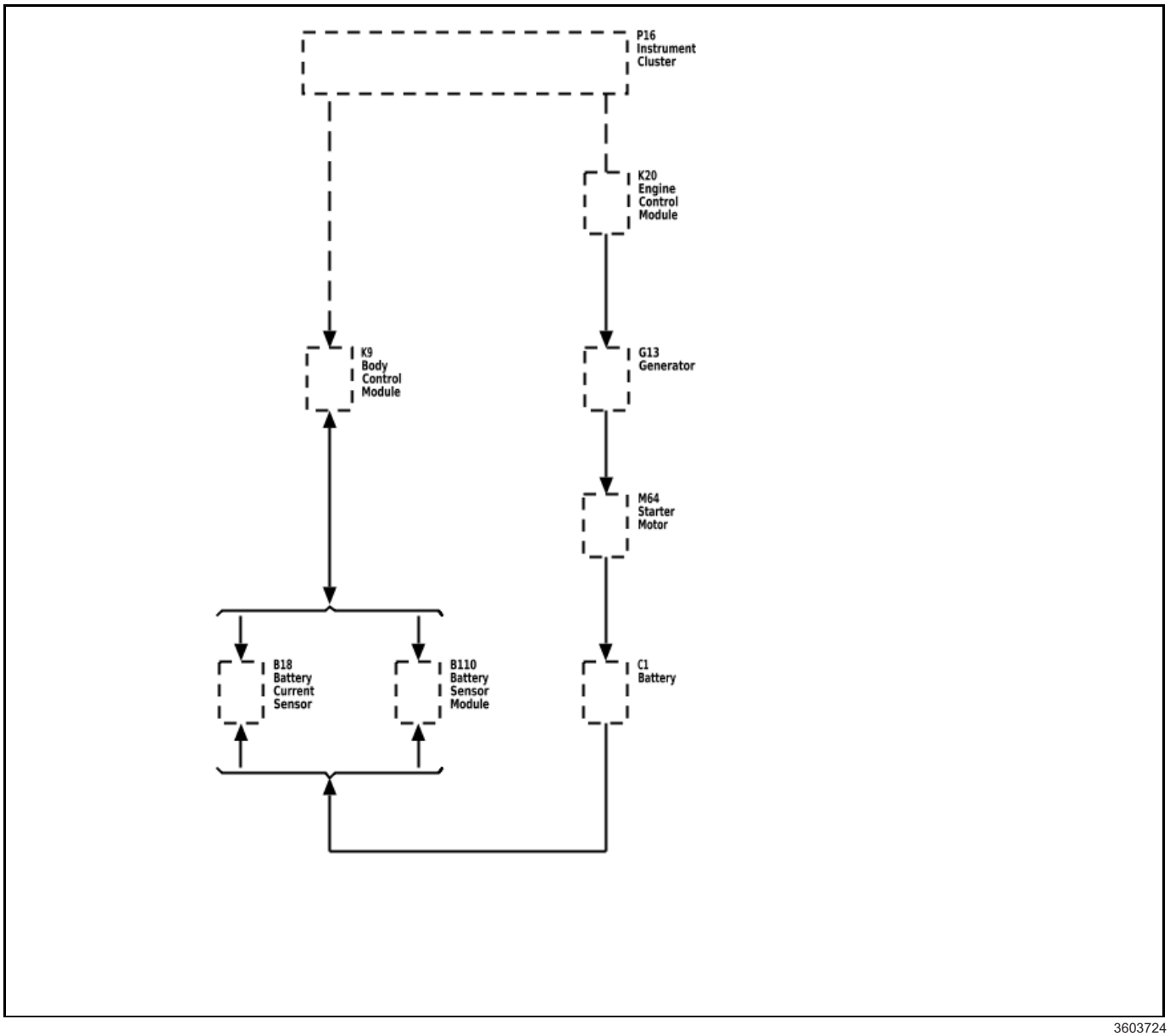
Engine Control Module (ECM)

When the engine is running, the generator turn-on signal is sent to the generator from the ECM, turning on the regulator. The generator's voltage regulator controls current to the rotor, thereby controlling the output voltage. The rotor current is proportional to the electrical pulse width supplied by the regulator. When the engine is started, the regulator senses generator rotation by detecting AC voltage at the stator through an internal wire. Once the engine is running, the regulator varies the field current by controlling the pulse width. This regulates the generator output voltage for proper battery charging and electrical system operation. The generator field duty terminal is connected internally to the voltage regulator and externally to the ECM. When the voltage regulator detects a charging system problem, it grounds this circuit to signal the ECM that a problem exists. The ECM monitors the generator field duty cycle signal circuit, and receives control decisions based on information from the BCM.

Instrument Cluster

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

The instrument cluster also provides customer notification if there is a concern with the charging system. There are two means of notification: a charge indicator on the instrument cluster and/or a service system message displayed on the Driver Information Center (DIC) if equipped.



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Charging System Operation

The purpose of the charging system is to maintain the battery charge and vehicle loads. There are 6 modes of operation and they include:

- Battery Sulfation Mode
- Charge Mode
- Fuel Economy Mode
- Head lamp Mode
- Start Up Mode
- Voltage Reduction Mode

The ECM Controls the Generator through the generator turn–on signal circuit, also known as the Generator L-terminal. The ECM monitors the generator performance though the Generator field duty cycle signal circuit, also known as the generator F-terminal.

The Generator turn–on signal (Generator L-terminal) is a Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. 0–5% and 95–100% are for diagnostic purposes, with 0–5% monitoring for an open circuit and 95–100% monitoring for a short to ground at a fixed 13.8 V. The following table shows the commanded duty cycle and output voltage of the Generator:

Commanded Duty Cycle	Generator Output Voltage (+/- .25 V)
0–5%	13.8 V
10%	11 V
20%	11.56 V
30%	12.13 V
40%	12.69 V
50%	13.25 V
60%	13.81 V
70%	14.38 V
80%	14.94 V
90%	15.5 V
95–100%	13.8 V

The Generator provides a PWM feedback signal of the Generator voltage output through the Generator field duty cycle signal circuit to the ECM. This information is sent to the Body Control Module (BCM). The Generator field duty cycle signal (Generator F-terminal) is a PWM signal of 60–460 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–100%. 0–5% is reserved for diagnostic purposes.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage displayed in the DIC to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Charging System Modes

Battery Sulfation Mode

The BCM will enter this mode when the interpreted Generator output voltage is less than 13.2 V for 45 minutes. When this condition exists the BCM will enter Charge Mode for 2–3 minutes. The BCM will then determine which mode to enter depending on voltage requirements.

Charge Mode

The BCM will enter Charge Mode when ever one of the following conditions are met:

- Windshield wipers are ON for more than 3 s.
- Climate Control Voltage Boost Mode Request is true, as sensed by the HVAC control module via serial data. High speed cooling fan, rear defogger, and HVAC high speed blower operation can cause the BCM to enter the Charge Mode.
- The estimated battery temperature is less than 0° C (32°F).
- Battery State of Charge is less than 80%.
- Vehicle speed is greater than 145 km/h (90 mph)
- A current sensor malfunction exists.
- System voltage is determined to be below 12.56 V

When any one of these conditions is met, the system will set targeted generator output voltage to a charging voltage between 13.9–15.5 V, depending on the battery state of charge and estimated battery temperature.

Fuel Economy Mode

The BCM will enter Fuel Economy Mode when the estimated battery temperature is at least 0°C (32°F) but less than or equal to 80°C (176°F), the calculated battery current is less than 15 A and greater than −8 A, and the battery state-of-charge is greater than or equal to 80%. Its targeted generator output voltage is the open circuit voltage of the battery and can be between 12.5–13.1 V. When fuel economy mode is active, the generator is not charging, only maintaining open circuit battery voltage. The BCM will exit this mode and enter Charge Mode when any of the conditions described above are present.

Headlamp Mode

The BCM will enter Headlamp Mode when ever the head lamps are ON (high or low beams). Voltage will be regulated between 13.9–14.5 V.

Start Up Mode

When the engine is started the BCM sets a targeted generator output voltage of 14.5 V for 30 s.

Tow/Haul Mode (if applicable)

Pressing the Tow/Haul Mode button located on the center stack, the vehicle system voltage is raised and the remote (non-vehicle) battery will be charged. Having the headlamps on will raise the system voltage and if the Tow/Haul button is applied it will not serve any purpose. The voltage is regulated between 13.9-14.5 V.

Instrument Cluster Operation

Charge Indicator Operation

The instrument cluster illuminates the charge indicator and displays a warning message in the driver information center if equipped, when the one or more of the following occurs:

- The ECM detects that the generator output is less than 11 V or greater than 16 V. The instrument cluster receives a serial data message from the ECM requesting illumination.
- The instrument cluster determines that the system voltage is less than 11 V or greater than 16 V for more than 30 s. The instrument cluster receives a serial data message from the BCM indicating there is a system voltage range concern.
- The instrument cluster performs the displays test at the start of each ignition cycle. The indicator illuminates for approximately 3 s.

Driver Information Center Message: BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM

The BCM and the ECM will send a serial data message to the driver information center for the BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM message to be displayed. It is displayed when a charging system DTC is a current DTC. The message is turned off when the conditions for clearing the DTC have been met.

Voltmeter Gauge and/or System Voltage Display (if equipped)

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage display in the driver information center to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Electrical Power Management Description and Operation (Gasoline)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Electrical Power Management Description and Operation (Diesel)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition. Idle boost consists of three steps: idle boost 1, idle boost 2, and idle boost 3 (approximately 725, 850, and 850 rpm respectively). Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Starting System Description and Operation

Starter Motor Operation (Without KL9)

The starter motors are non-repairable. They have pole pieces that are arranged around the armature. Both solenoid windings are energized. The pull-in winding circuit is completed to the ground through the starter motor. The windings work together magnetically to pull and hold in the plunger. The plunger moves the shift lever. This action causes the starter drive assembly to rotate on the armature shaft spline as it engages with the flywheel ring gear on the engine. Moving at the same time, the plunger also closes the solenoid switch contacts in the starter solenoid. Full battery voltage is applied directly to the starter motor and it cranks the engine.

As soon as the solenoid switch contacts close, current stops flowing thorough the pull-in winding because battery voltage is applied to both ends of the windings. The hold-in winding remains energized. Its magnetic field is strong enough to hold the plunger, shift lever, starter drive assembly, and solenoid switch contacts in place to continue cranking the engine. When the engine starts, pinion overrun protects the armature from excessive speed until the switch is opened.

When the crank signal is removed, the starter relay opens and battery voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to the ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now opposite the direction of the current flow when the winding was first energized.

The magnetic fields of the pull-in and hold-in windings now oppose one another. This action of the windings, along with the help of the return spring, causes the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter circuit is turned off.

Enhanced Starter Motor Operation (KL9)

The Engine Stop/Start system in GM vehicles automatically turns off the engine when the vehicle comes to a stop under certain driving conditions, and can quickly restart the engine in about 0.3 seconds when commanded to do so.

In order to smoothly restart the engine as quickly as possible while managing the greater number of engine starts, the Stop/Start system uses an enhanced starter motor that operates differently from a conventional starter motor. It has a high performance electric motor and a stronger pinion engagement mechanism than a conventional starter. It also has independent control of the pinion and motor.

The enhanced starter motor continues using the typical pinion engagement mechanism with a starter solenoid that drives the pinion gear to engage or disengage the flywheel of the engine. When engaged, the starter motor can rotate the engine flywheel and, in turn, the crankshaft.

On the enhanced starter of a Stop/Start system the operation is done in two separate functions inside the solenoid, Starter Motor and Pinion Actuator. Each function controlled individually by the ECM. There are two separate relays to control the two separate parts of the enhanced solenoid:

- KR27 Starter Motor Relay
- KR27C Starter Pinion Actuator Relay

The two individually-controlled relays allow for smooth engagement of the pinion gear into the flywheel with minimum noise and wear.

When the vehicle is coming to a stop, just before the engine stops rotating (at approximately 50 RPM) during stop/start operation, the ECM energizes the Starter Pinion Solenoid Actuator Relay to easily push the pinion gear into the flywheel gear without gear clash. (Fig. 8) When the engine stops rotating during Stop/Start operation (Auto Stop mode), the starter pinion gear is fully engaged, ready for the starter motor to become energized to quickly start the engine again.

A secondary need for the starter pinion to be driven into the flywheel gear before the engine stops rotating is to address quickly changing demands on the engine. For example, when a driver is slowing nearly to a stop — and the Stop/Start system is preparing for Auto Stop mode — but suddenly decides to release the brake and accelerate

In this situation, the engine has already stopped rotating, or nearly so. A conventional starter cannot restart the engine until the engine has completely stopped. However, with the enhanced starter, the starter pinion gear is fully engaged and ready to begin rotating the engine even before it fully stops turning. Otherwise, the engine would actually have to stop rotating before the pinion can engage smoothly to begin a restart.

To prevent a lag in engine operation, the ECM uses predictive speed matching of the flywheel gear speed and the pinion gear speed to engage the pinion gear into the flywheel gear without gear clash before the engine fully stops. By predicting how long it takes the starter motor to spin up using an algorithm, the pinion gear speed can be matched to the flywheel gear speed. The result is an almost instant restart that is possible at extremely low engine speeds.

Circuit Description

Keyless Start

When the Ignition mode switch is placed in the crank position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the crank position. The BCM then sends a serial data message to the engine control module (ECM) that crank has been requested. The ECM then verifies that the clutch is fully depressed or the automatic transmission is in Park/Neutral. If it is, the ECM then supplies 12 V to the control circuit of the starter relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Key Start

When the ignition switch is placed in the Start position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the Start position. The BCM then sends a message to the engine control module (ECM) notifying it that CRANK has been requested. The ECM verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies 12 V to the control circuit of the crank relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Section 5

HVAC

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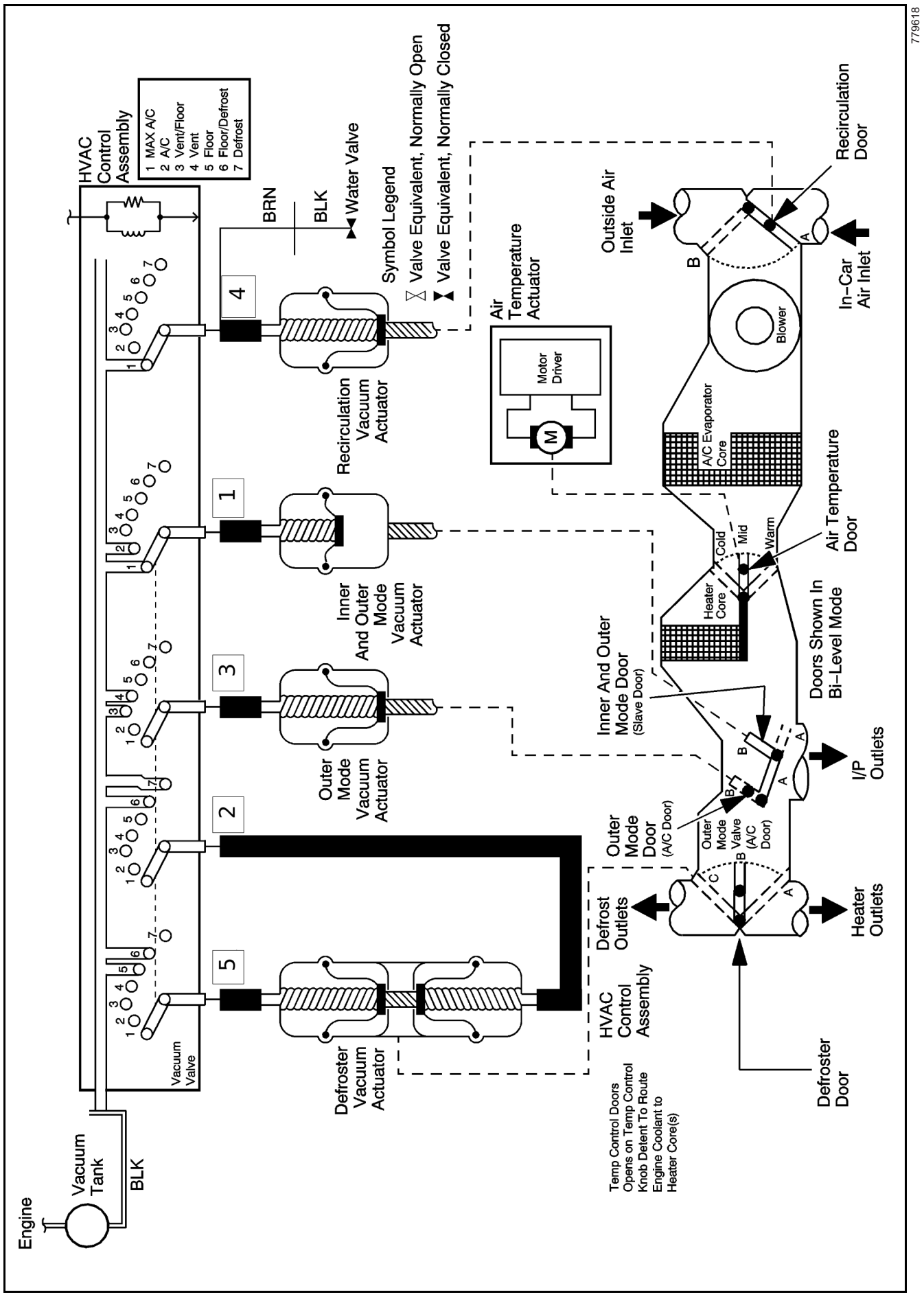
BLANK

HVAC - Manual

Schematic and Routing Diagrams


HVAC Vacuum Schematics (Vacuum System Control Schematic)
779618
HVAC Control Assembly
1 MAX A/C
2 A/C
3 Vent/Floor
4 Vent
5 Floor
6 Floor/Defrost
7 Defrost
BRN
BLK
Water Valve
Symbol Legend
Valve Equivalent, Normally Open
Valve Equivalent, Normally Closed
Air Temperature Actuator
Motor Driver
Recirculation Vacuum Actuator
Inner And Outer Mode Vacuum Actuator
Outer Mode Vacuum Actuator
Defroster Vacuum Actuator
Vacuum Valve
Engine
Vacuum Tank
BLK
Temp Control Doors Opens on Temp Control Knob Detent To Route Engine Coolant to Heater Core(s)
HVAC Control Assembly
Defrost Outlets
Outer Mode Door (A/C Door)
Outer Mode Valve (A/C Door)
Inner And Outer Mode Door (Slave Door)
Heater Core
A/C Evaporator Core
Blower
Outside Air Inlet
Recirculation Door
In–Car Air Inlet
Air Temperature Door
Cold
Mid
Warm
Doors Shown In Bi–Level Mode
I/P Outlets
Heater Outlets
Defroster Door

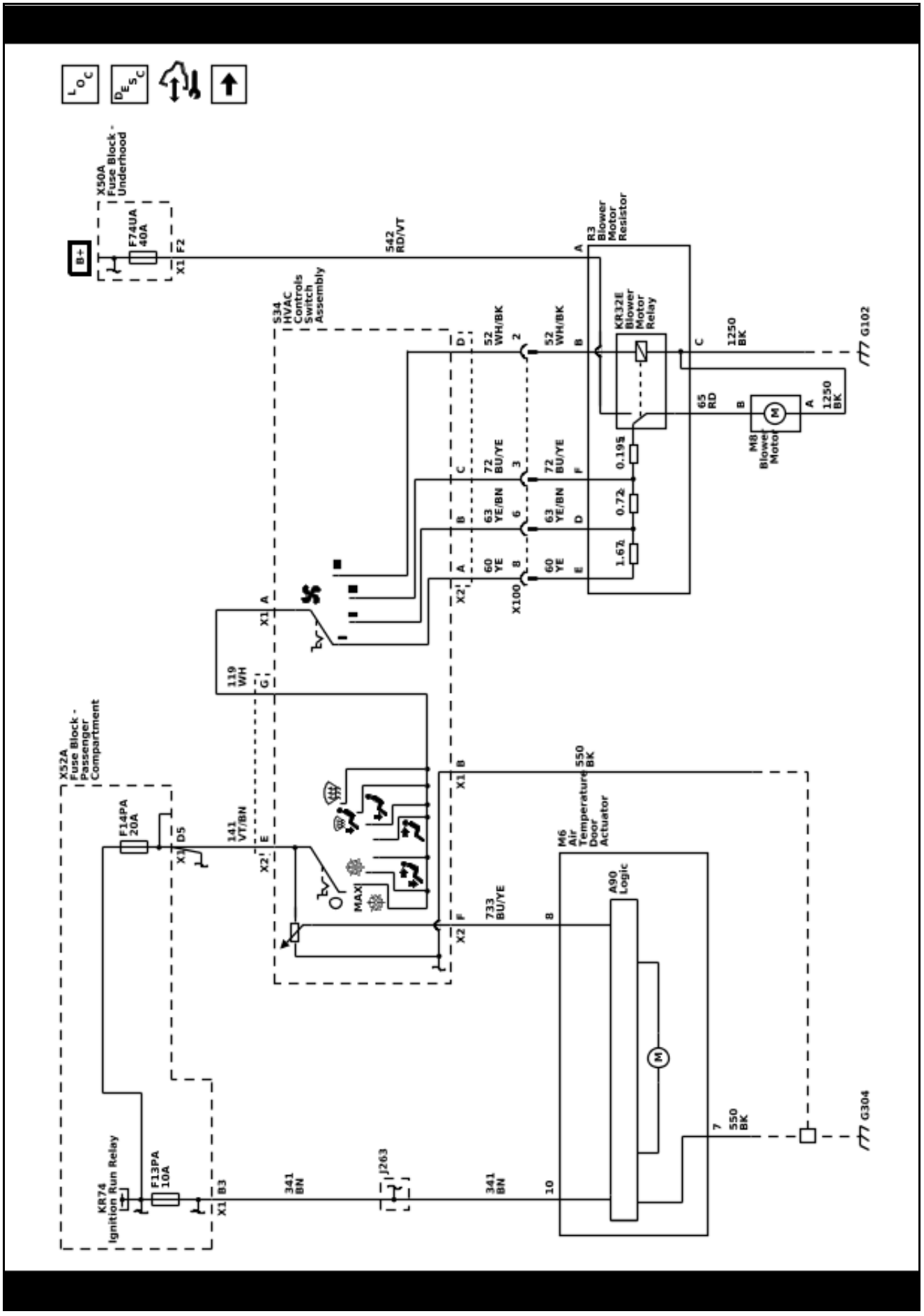
Heater Only

Vacuum Valve Switch Operating Chart							
Vacuum Hose Connector	**Port Number**	**Off**	**Vent**	**Bi- Level**	**Heat**	**Blend**	**Defrost**
A/C Open	1	Vent	Vacuum	Vent	Vent	Vent	Vent
Defrost	2	Vent	Vent	Vent	Vent	Vent	Vacuum
Bi- Level	3	Vent	Vacuum	Vacuum	Vent	Vent	Vent
Recirculation	4	Vent	Vent	Vent	Vent	Vent	Vent
Heater	5	Vacuum	Vent	Vacuum	Vacuum	Vent	Vent
Vacuum Source	6	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum

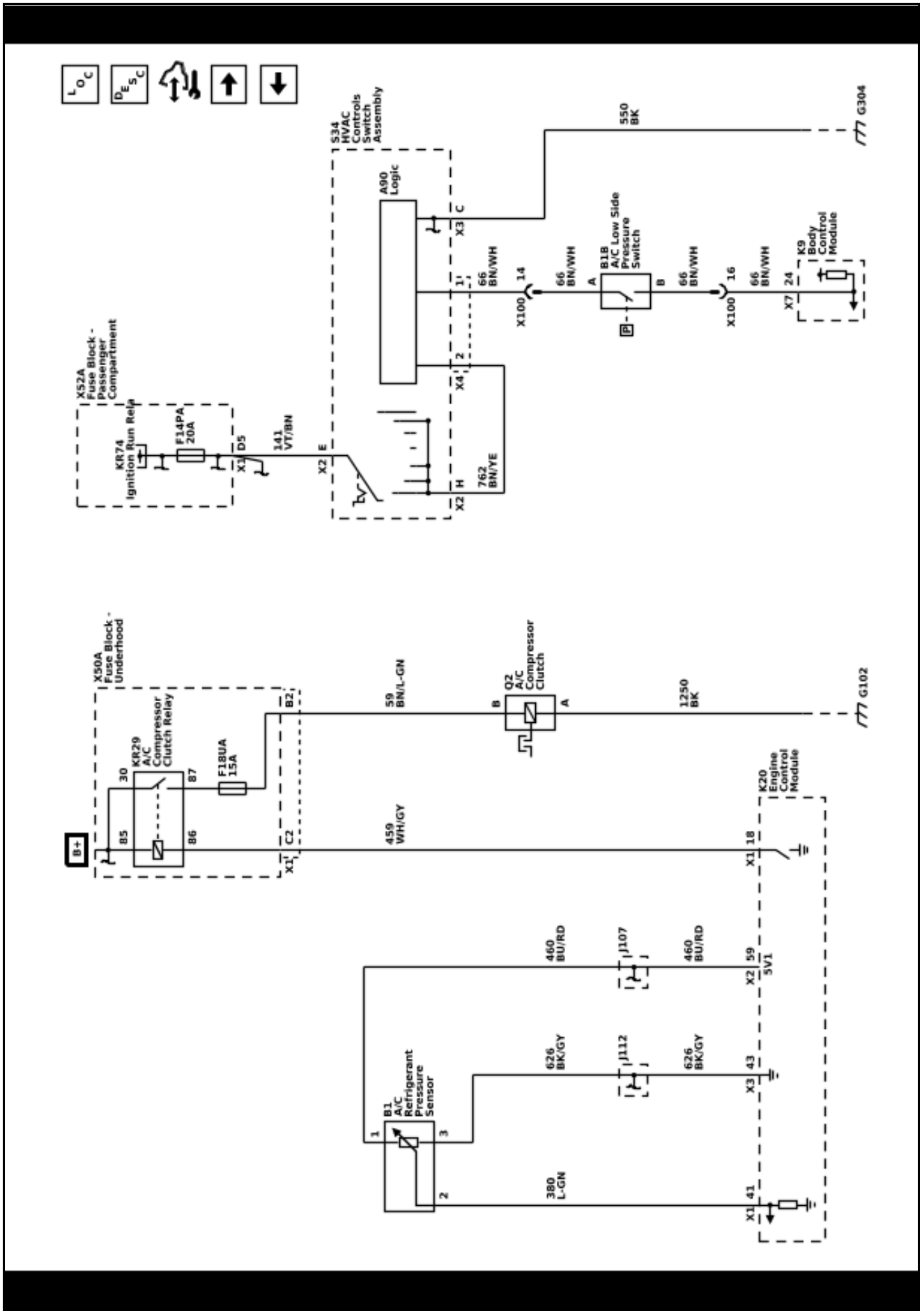
Heater and Air Conditioning

Vacuum Valve Switch Operating Chart									
Vacuum Hose Connector	**Port Number**	**Off**	**MAX**	**Normal**	**Bi- Level**	**Vent**	**Heat**	**Blend**	**Defrost**
A/C Open	1	Vent	Vacuum	Vacuum	Vent	Vacuum	Vent	Vent	Vent
Defrost	2	Vent	Vent	Vent	Vent	Vent	Vent	Vent	Vacuum
Bi- Level	3	Vent	Vacuum	Vacuum	Vacuum	Vacuum	Vent	Vent	Vent
Recirculation	4	Vent	Vacuum	Vent	Vent	Vent	Vent	Vent	Vent
Heater	5	Vacuum	Vent	Vent	Vacuum	Vent	Vacuum	Vent	Vent
Vacuum Source	6	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum

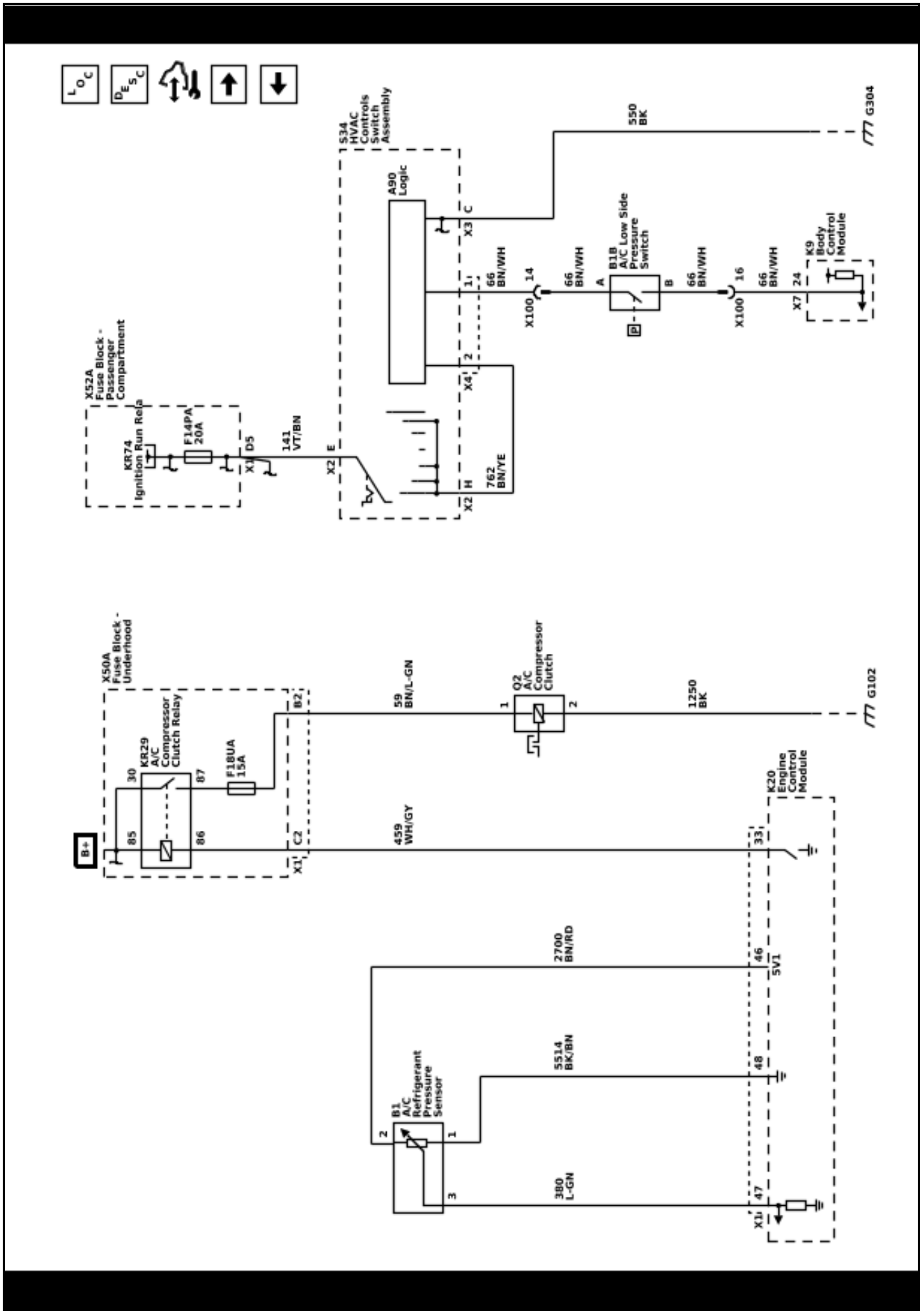
HVAC Schematics (Front Air Delivery Controls and Front Blower Motor)



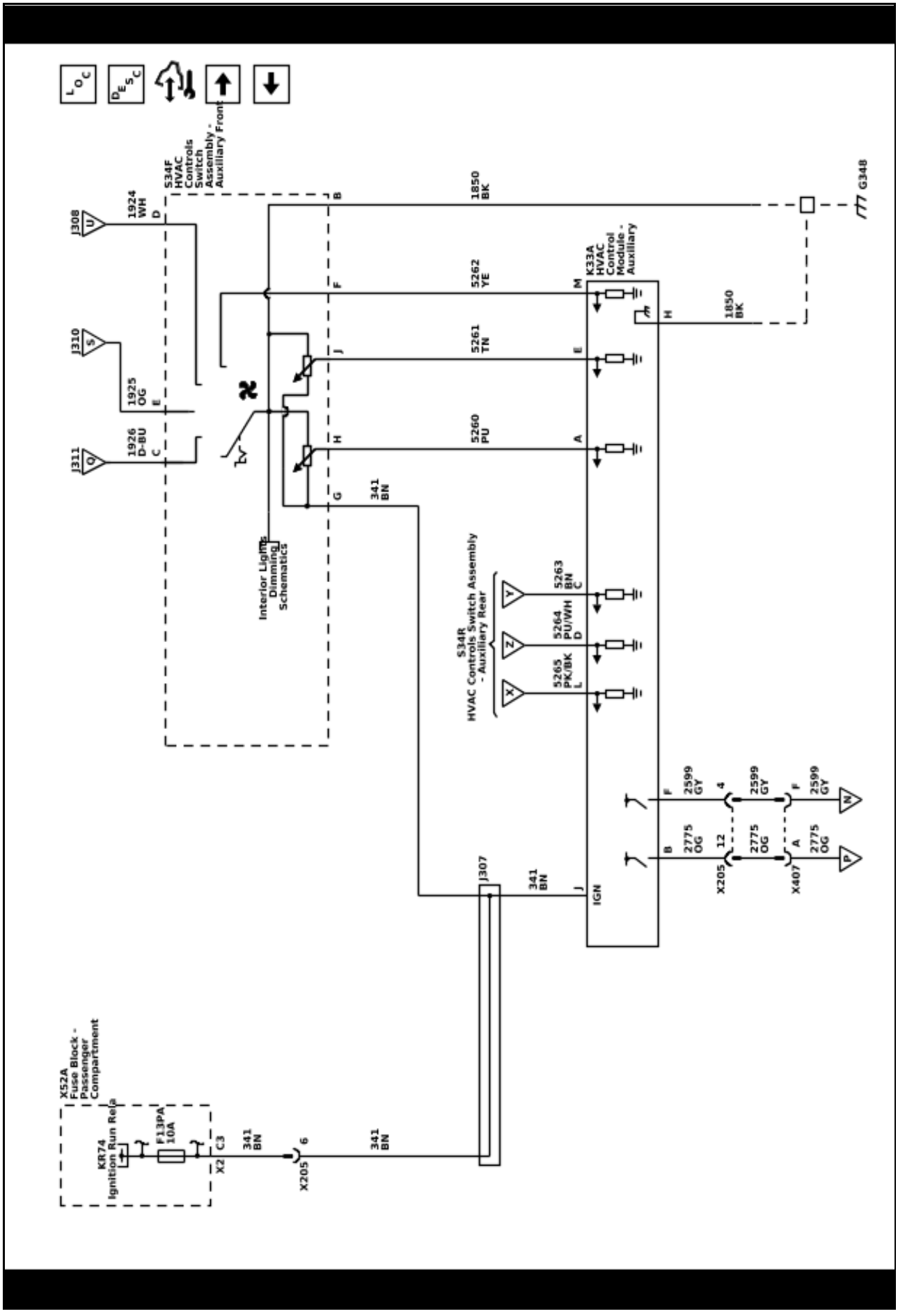
HVAC Schematics (Compressor Controls (C60-LWN))



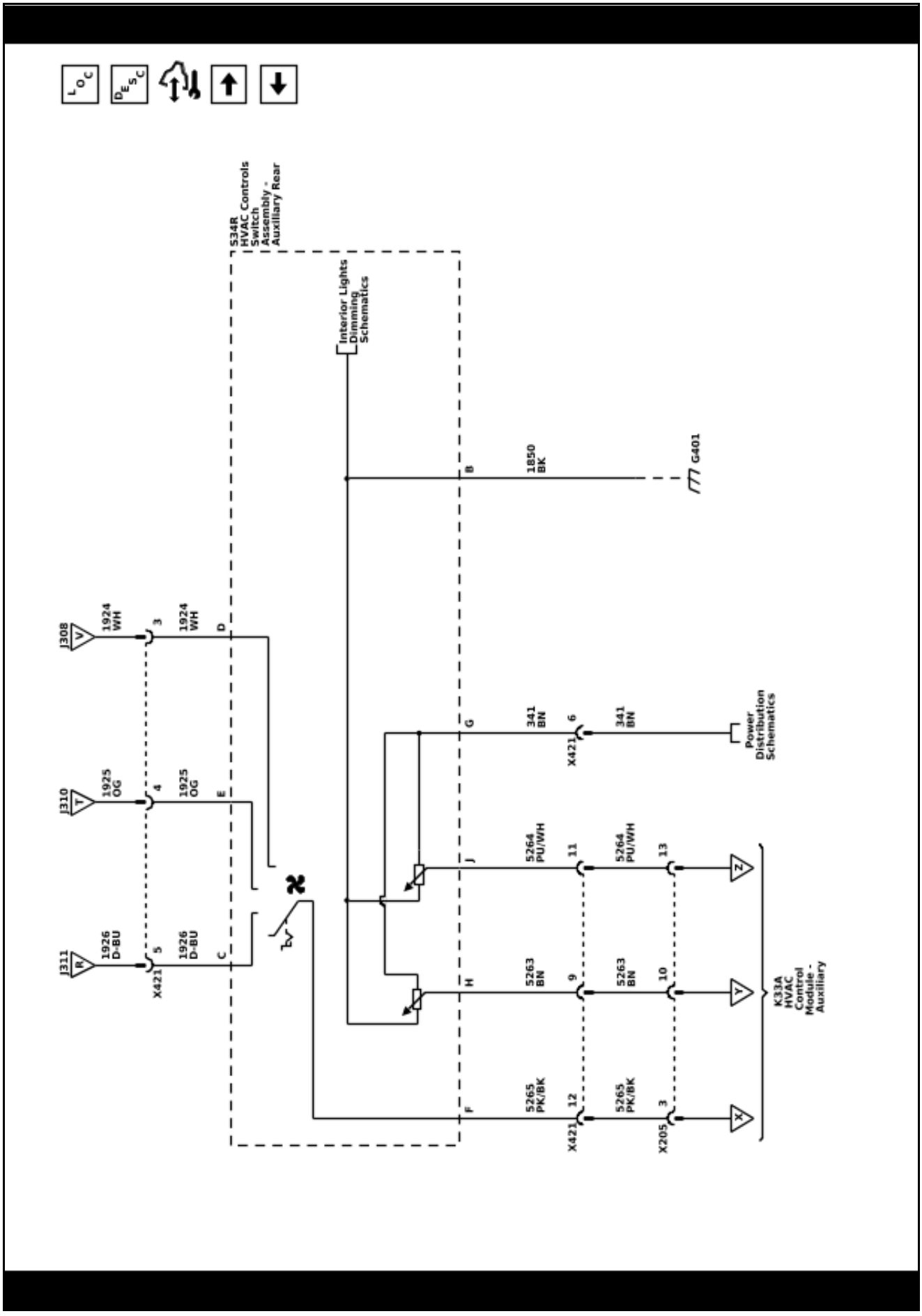
HVAC Schematics (Compressor Controls (C60+LWN))



HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), with Rear HVAC Controls - Air Delivery Controls)



HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), with Rear HVAC Controls - Rear Controls)



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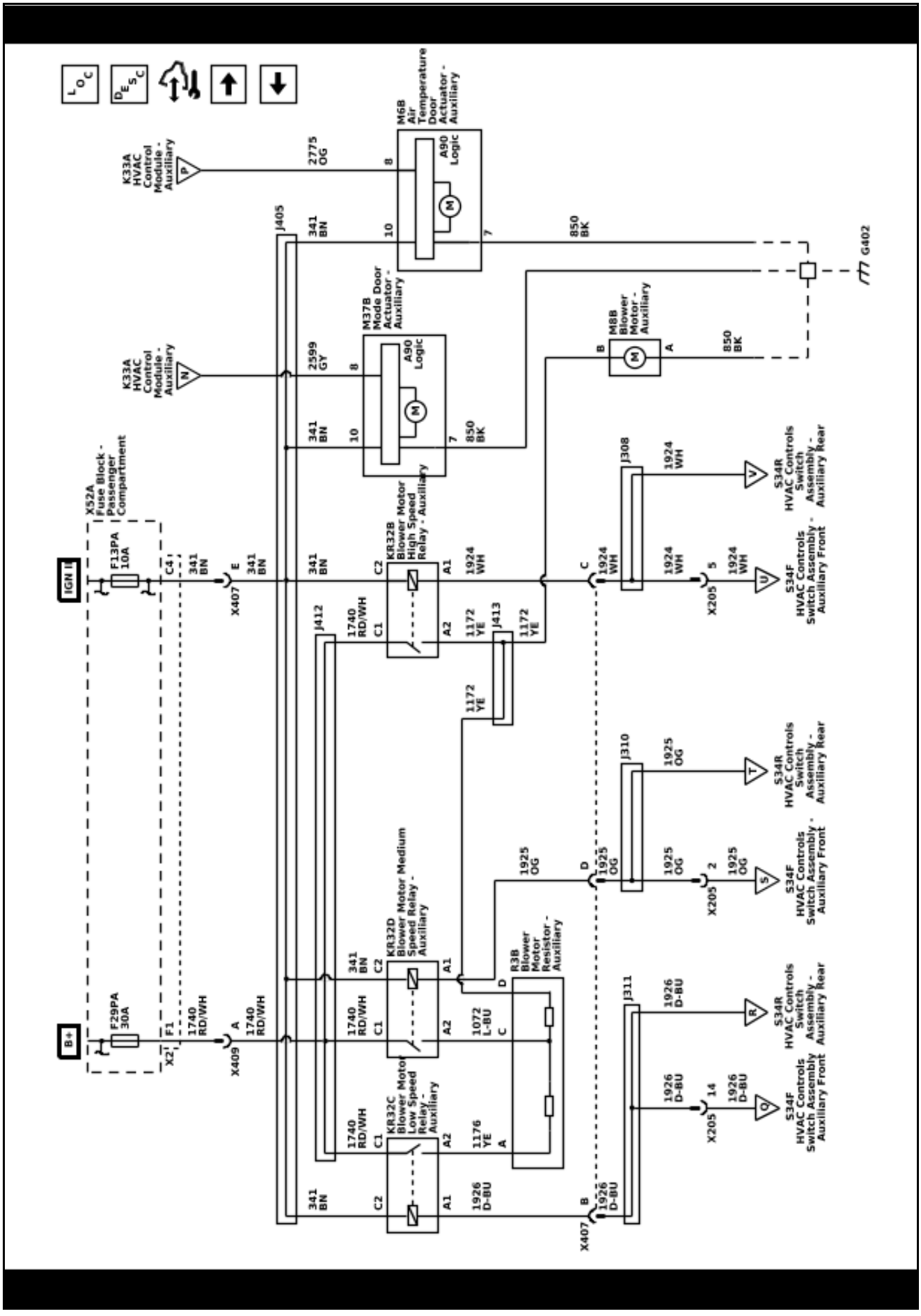
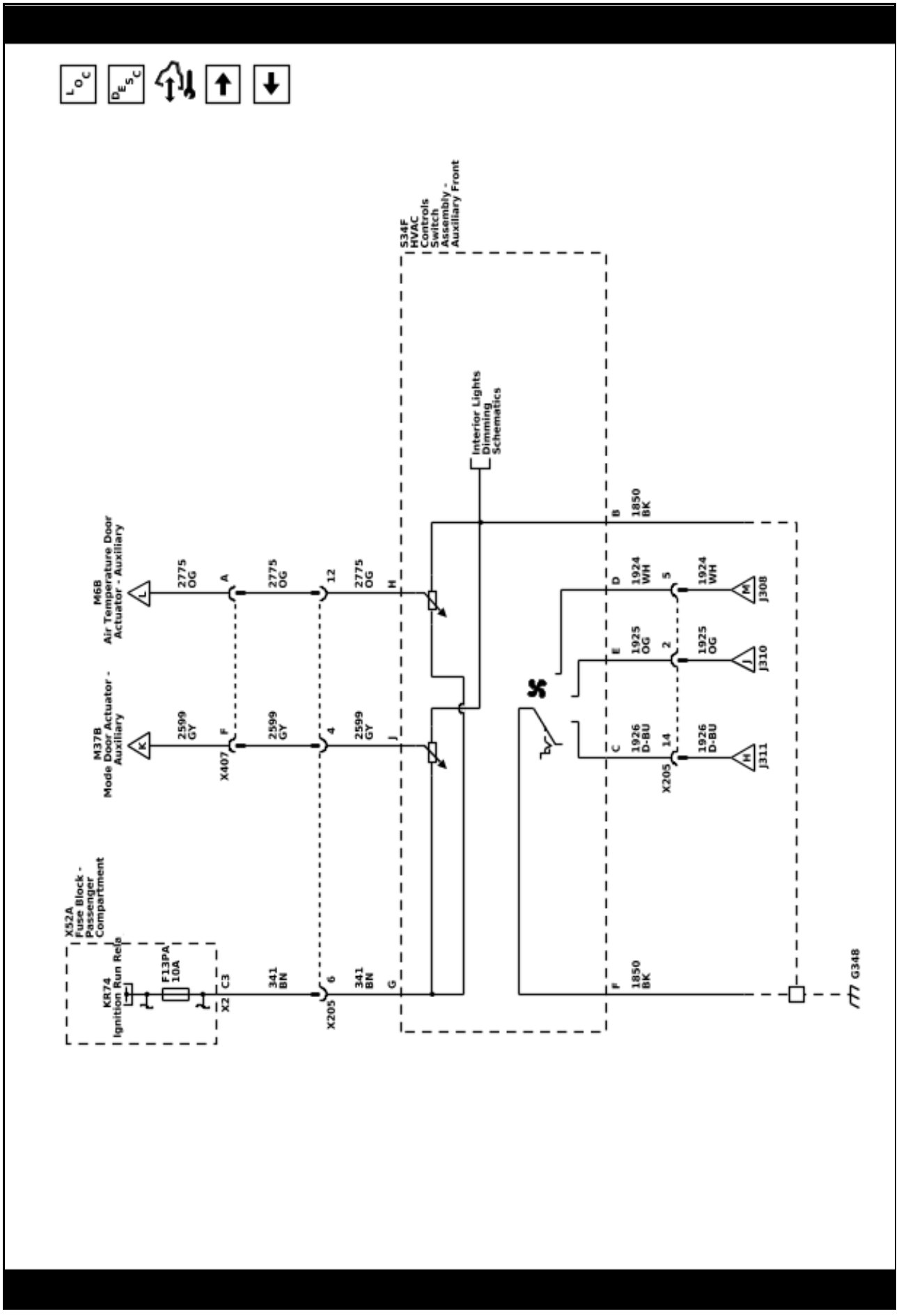
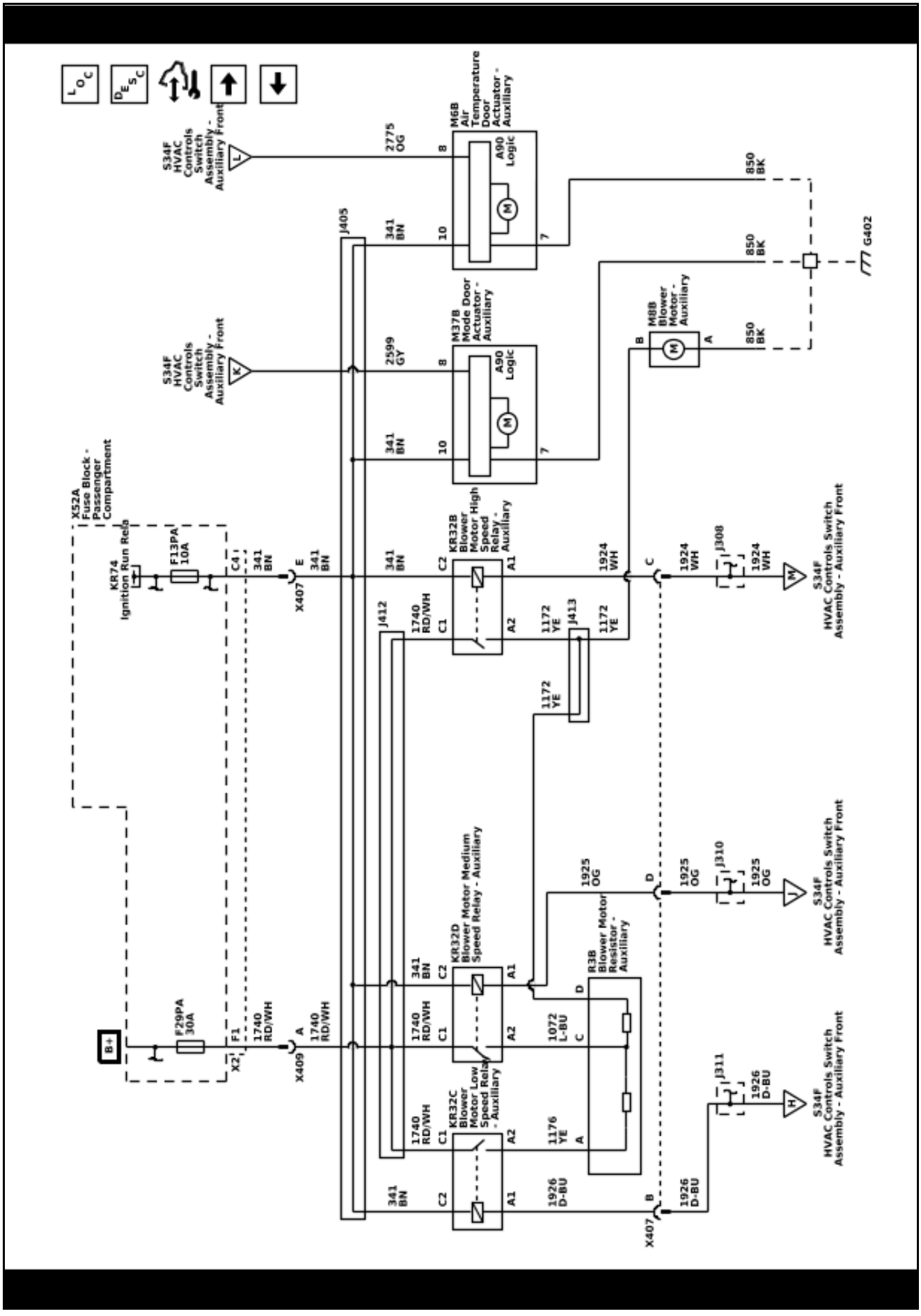
HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), with Rear HVAC Controls - Front Controls)



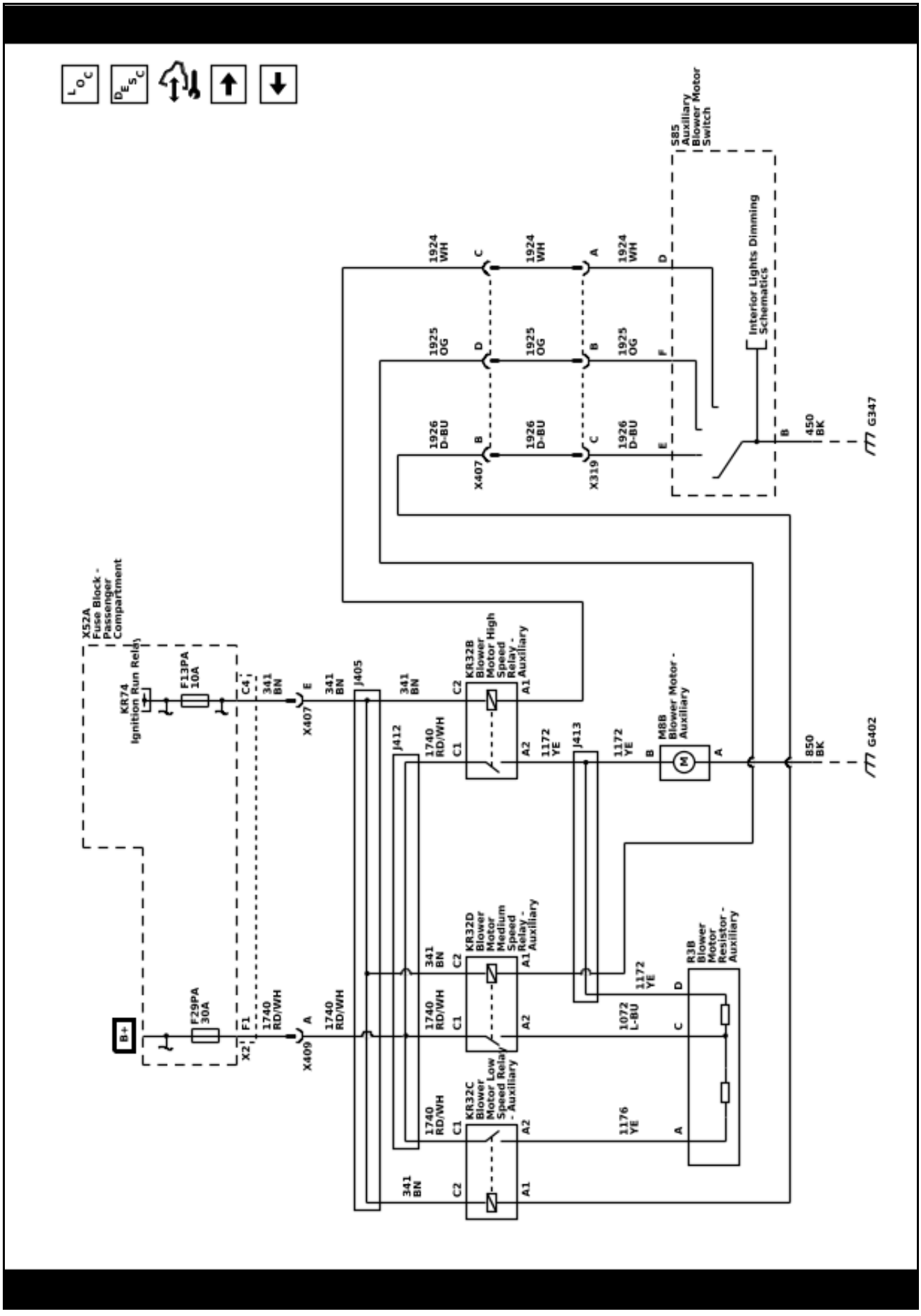
HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), without Rear HVAC Controls - Air Delivery Controls)



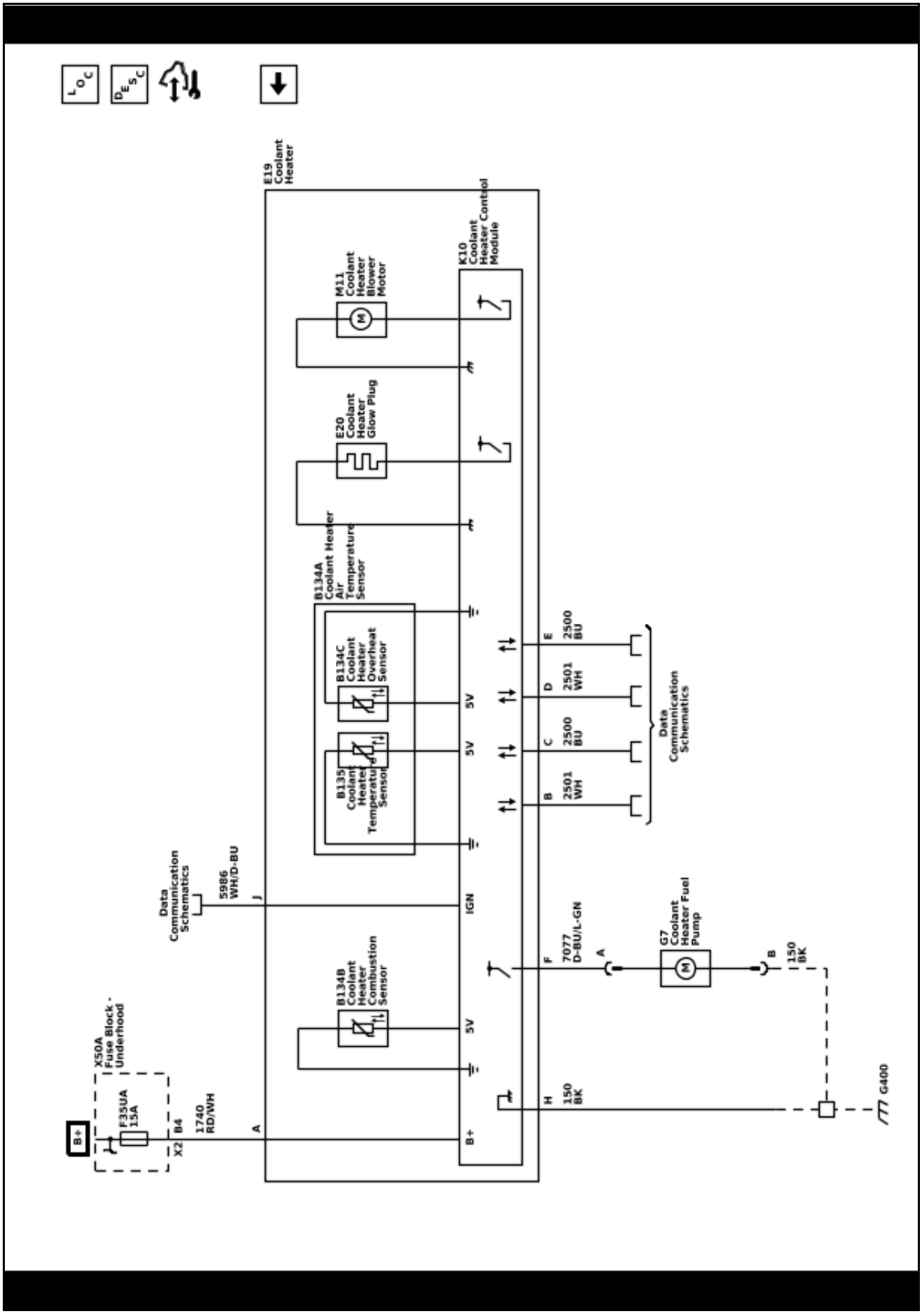
HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), without Rear HVAC Controls - Front Controls)



HVAC Schematics (Rear HVAC without Rear Air Conditioning (C36 without C69))



HVAC Schematics (Coolant Heater (K08))



Description and Operation

Air Delivery Description and Operation

The air delivery description and operation is divided into the following:

- HVAC Control Assembly
- Air Speed
- Auxiliary Air Speed
- Air Distribution
- Auxiliary Air Delivery

HVAC Control Assembly

The HVAC control assembly is a non-class 2 device that interfaces between the operator and the HVAC system to maintain air temperature and distribution settings. The ignition 3 voltage circuit provides power to the control assembly. Two integrated potentiometers control air temperature door position and blower motor speed. The integrated vacuum system controls the position of the mode doors.

Air Speed

The HVAC control assembly applies voltage to the blower motor control circuit that corresponds to the selected blower speed. The resistors and the blower motor are in a series circuit. The following list represents the number of resistors in series with the blower motor per particular speed request:

- Low speed-3 resistors
- Medium 1 speed-2 resistors
- Medium 2 speed-1 resistor

When the operator requests High speed, the HVAC control assembly applies voltage to the blower motor relay through the high blower motor control circuit. The voltage energizes the blower motor relay, connecting the blower motor to battery positive voltage.

Auxiliary Air Speed

The auxiliary HVAC control assembly applies voltage to the auxiliary blower motor control circuit that corresponds to the selected blower speed. The resistors and the blower motor are in a series circuit. The following list represents the number of resistors in series with the blower motor per particular speed request:

- Low speed-2 resistors
- Medium speed-1 resistor

When the operator requests High speed, the HVAC control assembly applies voltage to the blower motor relay through the auxiliary high blower motor control circuit. The voltage energizes the blower motor relay, connecting the blower motor to battery positive voltage.

Air Distribution

The HVAC control assembly uses vacuum to control the mode door position. Vacuum is supplied to the control assembly and a vacuum tank by either an engine vacuum source, or a vacuum pump when the vehicle is equipped with a diesel engine..

Vacuum Pump (Diesel Engines)

The mechanical vacuum pump operates when the engine is running. The vacuum pump supplies vacuum to the HVAC control assembly and vacuum tank.

Mode Switch

The mode switch is a rotary vacuum valve that directly applies vacuum to the appropriate vacuum actuator. Use the mode switch to change the air delivery mode in the vehicle.

MAX A/C (If Equipped)

The mode switch applies vacuum to ports 1, 3, and 4. The mode actuators have vacuum applied to them, directing airflow to the vents. The recirculation actuator has vacuum applied to it positioning the recirculation door to recirculate air within the vehicle. A/C compressor operation is requested.

A/C (If Equipped)

The mode switch applies vacuum to ports 1 and 3. The mode actuators have vacuum applied to them, directing airflow to the vents. A/C compressor operation is requested.

Bi-Level Mode

The mode switch applies vacuum to ports 3 and 5. The inner mode and defrost actuators have vacuum applied to them, directing airflow to the vents and floor.

Vent Mode

The mode switch applies vacuum to ports 1 and 3. The mode actuators have vacuum applied to them, directing airflow to the vents.

Floor Mode

The mode switch applies vacuum to port 5. The defrost actuator has vacuum applied to it, directing airflow to the floor.

Mix-Blend Mode

The mode switch vents all ports. With no vacuum at any port, the following occurs:

- Vacuum is bled off the defrost actuator, keeping it in a neutral position. The defroster door is held stationary in the half-open directing airflow through the defroster and floor outlets.
- A/C compressor operation is requested.

Defrost Mode

The mode switch applies vacuum to port 7 and the following occurs:

- The defrost actuator has vacuum applied to it directing airflow through the defroster outlet.
- A/C compressor operation is requested.

Auxiliary Air Distribution (C69)

Auxiliary HVAC Control Processor

The auxiliary HVAC control processor controls all outputs for the auxiliary HVAC system. The auxiliary HVAC control processor receives inputs from the front and rear auxiliary HVAC control assemblies. The auxiliary HVAC control processor does not utilize Class 2 communications. If the auxiliary HVAC control processor receives a 12V varied voltage input for an

auxiliary air temperature actuator change request. Then the auxiliary HVAC control processor creates a 12V varied output for control of the auxiliary air temperature actuator.

Auxiliary Mode Actuator

The auxiliary mode actuator is a 3 wire bi-directional electric motor. Ignition 3 voltage, ground and control circuits enable the actuator to operate. The control circuit uses a 0-12V linear-ramped signal to command the actuator movement. The 0 and 12V control values represent the opposite limits of the actuator range of motion. The values in between 0 and 12V correspond to the positions between the limits. When the HVAC control assembly sets a commanded, or targeted, value, the control signal is set to a value between 0-12V. The actuator shaft rotates until the commanded position is reached. The module will maintain the control value until a new commanded value is needed.

The rear auxiliary air delivery and the temperature controls work independently of the ventilation controls used for the front of the vehicle. The rear auxiliary mode door and the rear auxiliary temperature door are exclusively controlled from either of the 2 auxiliary HVAC controls. The front auxiliary HVAC controls has a permissive position called REAR. The REAR position enables control from the rear auxiliary HVAC controls.

Air Temperature Description and Operation

The air temperature controls are divided into five areas.

- HVAC Control Components
- Heating and A/C Operation
- Auxiliary Heating and A/C Operation
- Engine Coolant
- A/C Cycle

HVAC CONTROL COMPONENTS

HVAC Control Assembly

The HVAC control assembly is a non-class 2 device that interfaces between the operator and the HVAC system to maintain air temperature and distribution settings. The ignition 3 voltage circuits provide power to the control assembly. Two integrated potentiometers control air temperature door position and blower motor speed. The integrated vacuum system controls the mode door position.

Auxiliary HVAC Control Processor

The auxiliary HVAC control processor controls all outputs for the auxiliary HVAC system. The auxiliary HVAC control processor receives inputs from the front and rear auxiliary HVAC control assemblies. The auxiliary HVAC control processor does not utilize Class 2 communications.

If the auxiliary HVAC control processor receives a 12-volt varied voltage input for an auxiliary air temperature actuator change request. Then the auxiliary HVAC control processor creates a 12-volt varied output for control of the auxiliary air temperature actuator.

Air Temperature Actuator

The air temperature actuator and auxiliary air temperature actuator are a 3-wire bi-directional electric motor. Ignition 3 voltage, ground and control circuits enable the actuator to operate. The control circuit uses a 0–12-volt linear-ramped signal to command the actuator movement. The 0 and 12-volt control values represent the opposite limits of the actuator range of motion. The values in between 0 and 12 volts correspond to the positions between the limits.

When the HVAC control assembly sets a commanded, or targeted, value, the control signal is set to a value between 0–12 volts. The actuator shaft rotates until the commanded position is reached. The module will maintain the control value until a new commanded value is needed.

A/C Pressure Switches

The A/C system is protected by two A/C pressure switches.

- A/C low pressure switch
- A/C high pressure switch

The A/C high pressure switch interrupts the A/C request signal when the A/C line pressure is more than a predetermined value. The A/C low pressure switch interrupts the A/C low pressure switch signal when the A/C line pressure is less than or more than a predetermined value. When the powertrain control module (PCM) stops receiving the required signals, the A/C compressor clutch relay control circuit is no longer grounded, disengaging the A/C compressor clutch. The A/C compressor clutch is disengaged under the following conditions:

- A/C low pressure switch is less than 152 kPa (22 psi).
- A/C low pressure switch is more than 310 kPa (45 psi).
- A/C high pressure switch is more than 2896 kPa (420 psi).

Bypass Valves

The bypass valves included in the air temperature system are:

- Coolant Bypass Valve
- Hot Water Bypass Valve

The bypass valve is a normally open valve, which closes when vacuum is applied to the valve. When the MAX A/C mode is selected, vacuum from the HVAC control assembly is applied to the bypass valve. The vacuum must be strong enough to overcome the tension of the valve's internal return spring in order to close the bypass valve. The return spring forces the valve to return to the open position, when any of the other HVAC modes are selected. In the closed position, the flow of coolant to the heater core is bypassed, allowing maximum cooling to the passenger compartment.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. The vehicle operator can determine the passenger compartment

temperature by adjusting the air temperature switch. Regardless of the temperature setting, the following can effect the rate that the HVAC system can achieve the desired temperature:

- Recirculation
- Difference between inside and desired temperature
- Difference between ambient and desired temperature
- Blower motor speed setting
- Mode setting
- Auxiliary HVAC settings

The A/C system can be engaged by placing the mode switch in one of the following positions:

- Max A/C
- A/C
- Bi-Level
- Blend
- Defrost

The A/C system can operate regardless of the temperature setting. Regardless of the selected A/C mode setting, a request is sent to the PCM to turn on the A/C compressor clutch.

The following conditions must be met in order for the PCM to turn on the compressor clutch:

- Ambient air temperature is greater than 3°C (38°F)
- Engine coolant temperature (ECT) is less than 123°C (253°F)
- Engine speed is less than 5000 RPM
- The A/C compressor cycling switch pressure is between 124-388 kPa (18-49 psi)
- The A/C high pressure cutout switch is less than 2896 kPa (420 psi)

Once engaged, the compressor clutch will be disengaged for the following conditions:

- Throttle position is 100 percent
- The A/C compressor cycling switch pressure is less than 124 kPa (18 psi) or more than 338 kPa (49 psi)
- The A/C high pressure cutout switch is more than 2896 kPa (420 psi)
- Engine coolant temperature (ECT) is more than 123°C (253°F)
- Engine speed is more than 5000 RPM
- Transmission shift
- PCM detects excessive torque load
- PCM detects insufficient idle quality
- PCM detects a hard launch condition

When the compressor clutch disengages, the compressor clutch diode protects the electrical system from a voltage spike.

Heater Mode – Auxiliary Heater without A/C

The auxiliary blower motor recycles air from the vehicle's interior. The vehicle operator can determine the intensity of the auxiliary heater by placing the auxiliary blower motor in one of the following positions:

- Low
- Med
- High

Since there is no temperature switch, the temperature is controlled by the speed of the auxiliary blower motor. The auxiliary blower motor will only operate when the ignition is in the RUN position, and the auxiliary blower motor switch is in any position other than OFF.

Heater Mode – Front Auxiliary HVAC Control Assembly Only

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the instrument panel (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

Heater Mode – Front Auxiliary HVAC Control Assembly with Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a varied resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature

Heater Mode – Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the rear auxiliary HVAC control assembly allows the rear seat passengers to adjust the temperature in the rear of the vehicle. Power is provided to the rear auxiliary HVAC control assembly, auxiliary HVAC control processor and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

To activate the rear auxiliary HVAC control assembly, the front auxiliary HVAC control assembly must be placed in the REAR CNTL position. Ignition 3 voltage is sent to the auxiliary HVAC control processor. When the switch is placed in the REAR CNTL position, the voltage is grounded through the auxiliary blower motor switch control, front auxiliary HVAC control assembly and the ground circuit to allow the rear auxiliary HVAC control assembly to operate the auxiliary temperature actuator. Voltage delivered to the rear auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Front Auxiliary HVAC Control Assembly Only

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Front Auxiliary HVAC Control Assembly with Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the rear auxiliary HVAC control assembly allows the rear seat passengers to adjust the temperature in the rear of the vehicle. Power is provided to the rear auxiliary HVAC control assembly, auxiliary HVAC control processor and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

To activate the rear auxiliary HVAC control assembly, the front auxiliary HVAC control assembly must be placed in the REAR CNTL position. Ignition 3 voltage is sent to the auxiliary HVAC control processor. When the switch is placed in the REAR CNTL position, the voltage is grounded through the auxiliary blower motor switch control, front auxiliary HVAC control assembly and the ground circuit to allow the rear auxiliary HVAC control assembly to operate the auxiliary temperature actuator. Voltage delivered to the rear auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a varied resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

Engine Coolant

Engine coolant is the key element of the heating system. The thermostat controls engine operating coolant temperature. The thermostat also creates a restriction for the cooling system that promotes a positive coolant flow and helps prevent cavitation. Coolant enters the heater core through the inlet heater hose, in a pressurized state.

The heater core is located inside the HVAC module. The heat of the coolant flowing through the heater core is absorbed by the ambient air drawn through the HVAC module. Heated air is distributed to the passenger compartment, through the HVAC module, for passenger comfort.

The amount of heat delivered to the passenger compartment is controlled by opening or closing the HVAC module air temperature door. The coolant exits the heater core through the return heater hose and recirculated back through the engine cooling system.

Coolant Heater (K08)

The coolant heater function is to provide additional heat to the passenger compartment. The coolant heater burns diesel fuel, to heat up the engine coolant when the vehicle is running and will only operate during conditions where ambient temperature is below 4°C (39°F) and a fuel tank level greater than 12.5 percent. The heat of the hot engine coolant is transferred to the HVAC module to heat the passenger compartment. The coolant heater does not heat up instantly. It must go through a self test and start up procedure before normal operation. The vehicle must be running to start the unit but after the unit is no longer commanded on a two minute shut down (purge) procedure starts. The coolant flow is from the engine to the fuel operated heater through the heat exchanger back to the engine.

Battery voltage and ground is supplied to the coolant heater. The electronic control unit inside the coolant heater determines when the unit will turn ON and OFF as well as how it will function. The electronic control unit also uses GMLAN communication and the engine control module (ECM) to transfer coolant heater information that the scan tool can read. The fuel operated heater contains flame sensors to disable the glow plug once the flame is established or to abort the startup attempt if the flame is not established.

Inputs to the coolant heater electronic control unit:

- Coolant sensor
- Overheat sensor
- Combustion sensor
- GMLAN ECM

Outputs from the coolant heater electronic control unit:

- Fuel pump
- Glow plug
- Blower motor
- GMLAN ECM

The coolant heater controls the coolant temperature with 3 operating modes.

- HIGH—If coolant temperature is in a range between −40 to +75°C (−40 to +176°F), the coolant heater fuel pump will pump fuel at maximum capacity to increase the coolant temperature as fast as possible. Note: Ambient temperature must be below 4°C (39°F), fuel tank level greater than 12.5 percent and the engine should be running.
- LOW—If coolant temperature is in a range between 85–90°C (185–194°F), the coolant heater fuel pump will pump fuel at minimum capacity to increase the coolant temperature at a slower rate.
- OFF—If coolant temperature is above 90°C (195° F), the coolant heater fuel pump will stop pumping fuel and allow the remaining fuel in the combustion chamber to burn out. The coolant heater fuel pump will not start pumping fuel again until the coolant temperature reaches 75°C (167°F).

FUNCTIONAL PRINCIPLES:

- The vehicle coolant pump continuously circulates the coolant over the heat exchanger inside the fuel operated heater and throughout the coolant system.
- The coolant heater fuel pump pumps the fuel from the vehicle fuel tank to the combustion chamber.
- Coolant heater blower blows the oxygen, which is necessary for the combustion process, into the combustion chamber.
- A Coolant heater glow plug generates the evaporation energy and creates the temperature which is necessary to ignite the Air-Fuel mixture
- The heat exchanger inside the fuel operated heater transfers the energy of the combustion process into the engine coolant.
- Depending on the coolant temperature, which is detected by the coolant sensors, the heater chooses either high or low setting or gets shut off.

SELF TEST OF THE UNIT:

Before every start of the heater, the operation of the individual components is tested.

- Fuel operated heater control unit check
- Flame sensor
- Coolant sensor
- Overheating sensor
- Glow plug
- Fuel pump
- Blower motor

The fuel operated heater will only start after the self test of the heating unit is successful. Should a fault be detected, a fault notification will be output through the vehicle diagnosis.

DESCRIPTION OF SAFETY MECHANISM :

During start up the ECU is performing a random access memory (RAM), read-only memory (ROM) and electrically erasable programmable read-only memory (EEPROM) test. If failures occur during a self test of the unit, the unit will not start.

- If the power supply voltage exceeds 16 volts the unit will not start or shut off with after purge time of 120 seconds.
- If the power supply voltage goes below 10.2 V for more than 40 seconds the unit will shut off and try to restart after a purge time of 120 seconds. If the failure occurs 3 times, then unit is not going to restart till next key off.

Description of component checks:

- Coolant Heater Blower Motor—After the unit is commanded on and before normal operation the blower is tested for an open circuit. While the heater is activated the blower is tested for a short to ground.
- Flame sensor—The flame sensor is tested continuously during operation for a short to ground, short to voltage or open circuit.
- Glow plug—After the unit is commanded and before normal operation the glow plug is tested for an open circuit. While the heater is activated the glow plug is tested for a short to ground.
- Coolant Heater Fuel Pump—After the coolant heater is commanded on and before normal operation is activated, the fuel pump is tested for an open circuit. While the coolant heater is activated the fuel pump is tested for a short to ground.
- Overheating Sensor and Coolant sensor—The overheat sensor and coolant sensor are tested continuously during operation for a short to ground, short to voltage or open circuit.

FIRST START OF THE UNIT (125 seconds):

After the self test was successfully completed a first start procedure sequence is attempted.

1. The ceramic glow plug starts to heat the combustion chamber.
2. After a delay, the blower switches on. During the start procedure, the blower continuously increases blowing speed.
3. The fuel pump pumps fuel into the combustion chamber. The cycle frequency of the fuel pump is also continuously increased during the start procedure.
4. The glow plug starts to vaporize the fuel, and creates the temperature to ignite the fuel.
5. After ignition, the heater runs continuously to reach the maximum heating power.
6. After the flame sensor has detected the flame, the start procedure is complete, and the glow plug switches off.

SECOND START OF THE UNIT (125 seconds):

If the first start is not successful, the heater attempts a second restart process. In doing this, the glow plug voltage is increased, in order to obtain better starting conditions. The first start sequence is then repeated.

UNSUCCESSFUL SECOND START:

If the second start is not successful in igniting the heater, a fault code is output from the heater.

- A new attempt to start will only occur after the ignition switch is cycled.
- After 10 failed ignition cycles one after the other, all further start attempts are stopped by the control unit. This inhibit state can only be released by clearing the codes with a scan tool.

A/C Cycle

Refrigerant is the key element in an air conditioning system. R-134a is presently the only EPA approved refrigerant for automotive use. R-134a is an very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system. The A/C system is mechanically protected with the use of a high pressure relief valve. If the high pressure switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line, to the orifice tube.

The orifice tube is located in the liquid line between the condenser and the evaporator. The orifice tube is the dividing point for the high and the low pressure sides of the A/C system. As the refrigerant passes through the orifice tube, the pressure on the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to vaporize at the orifice tube. The orifice tube also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the orifice tube flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator.

The refrigerant exits the evaporator through the suction line and back to the compressor, in a vapor state, and completing the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the HVAC module for passenger comfort. The heat and moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC module as water.

A/C Cycle with Auxiliary

The auxiliary A/C system operates from the vehicles primary A/C system. The front or primary A/C system must be ON to allow the rear A/C system to function.

Refrigerant is the key element in an air conditioning system. R-134a is presently the only EPA approved refrigerant for automotive use. R-134a is an very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The A/C system used on this vehicle is a non cycling system. Non cycling A/C systems use a high pressure switch to protect the A/C system from excessive pressure. The high pressure switch will OPEN the electrical signal, to the compressor clutch, in the event that the refrigerant pressure becomes excessive. After the high and low side of the A/C system pressure equalize, the high pressure switch will CLOSE. Closing the high pressure switch will complete the electrical circuit to the compressor clutch. The A/C system is also mechanically protected with the use of a high pressure relief valve. If the high pressure switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line. The liquid line flow is split and the liquid refrigerant flows to both the front or primary A/C system, and to the liquid line for the rear A/C system.

The liquid refrigerant, flowing to the rear A/C system, flows into the rear TXV. The rear TXV is located at the rear evaporator inlet. The TXV is the dividing point for the high and the low pressure sides of the rear A/C system. As the refrigerant passes through the TXV, the

pressure on the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to boil at the expansion device. The TXV also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the TXV flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the rear A/C module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the primary A/C systems suction line. Refrigerant in the primary A/C system suction line flows back to the compressor, in a vapor state, and completes the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the rear A/C module for passenger comfort. The heat and moisture removed from the rear passenger compartment will also change form, or condense, and is discharged from the rear A/C module as water.

Section 6

Power and Signal Distribution

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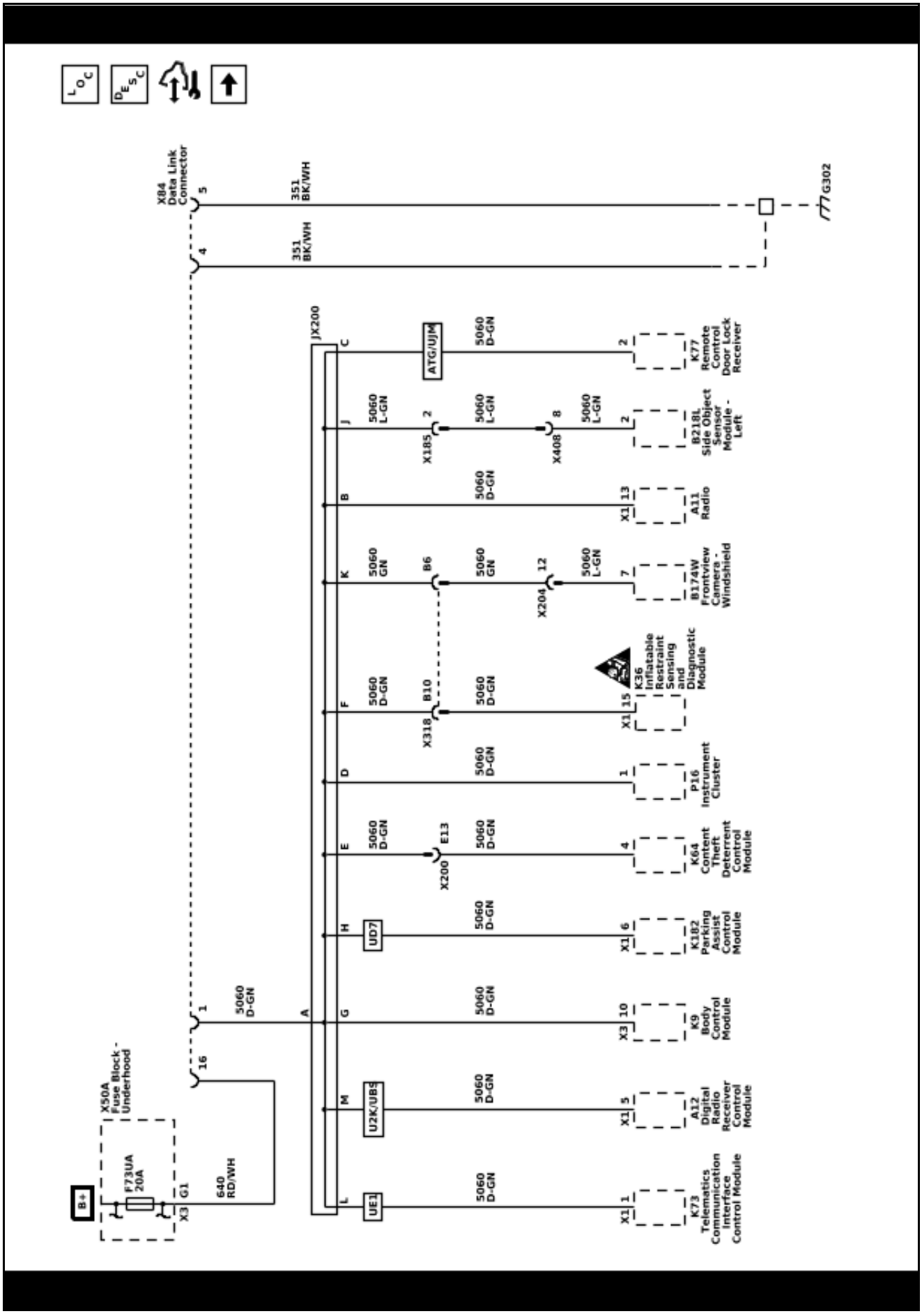
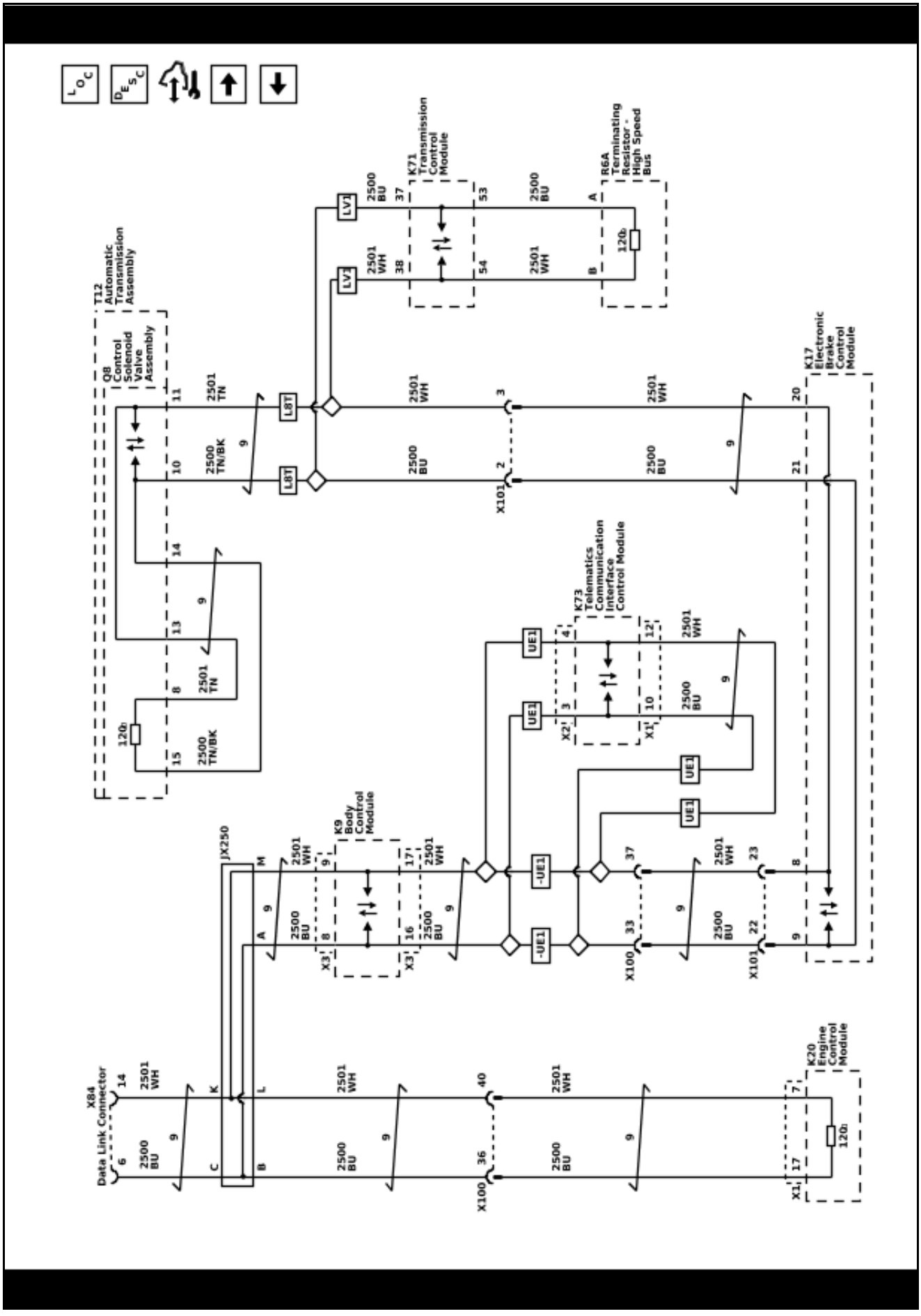
Data Communications

Schematic and Routing Diagrams

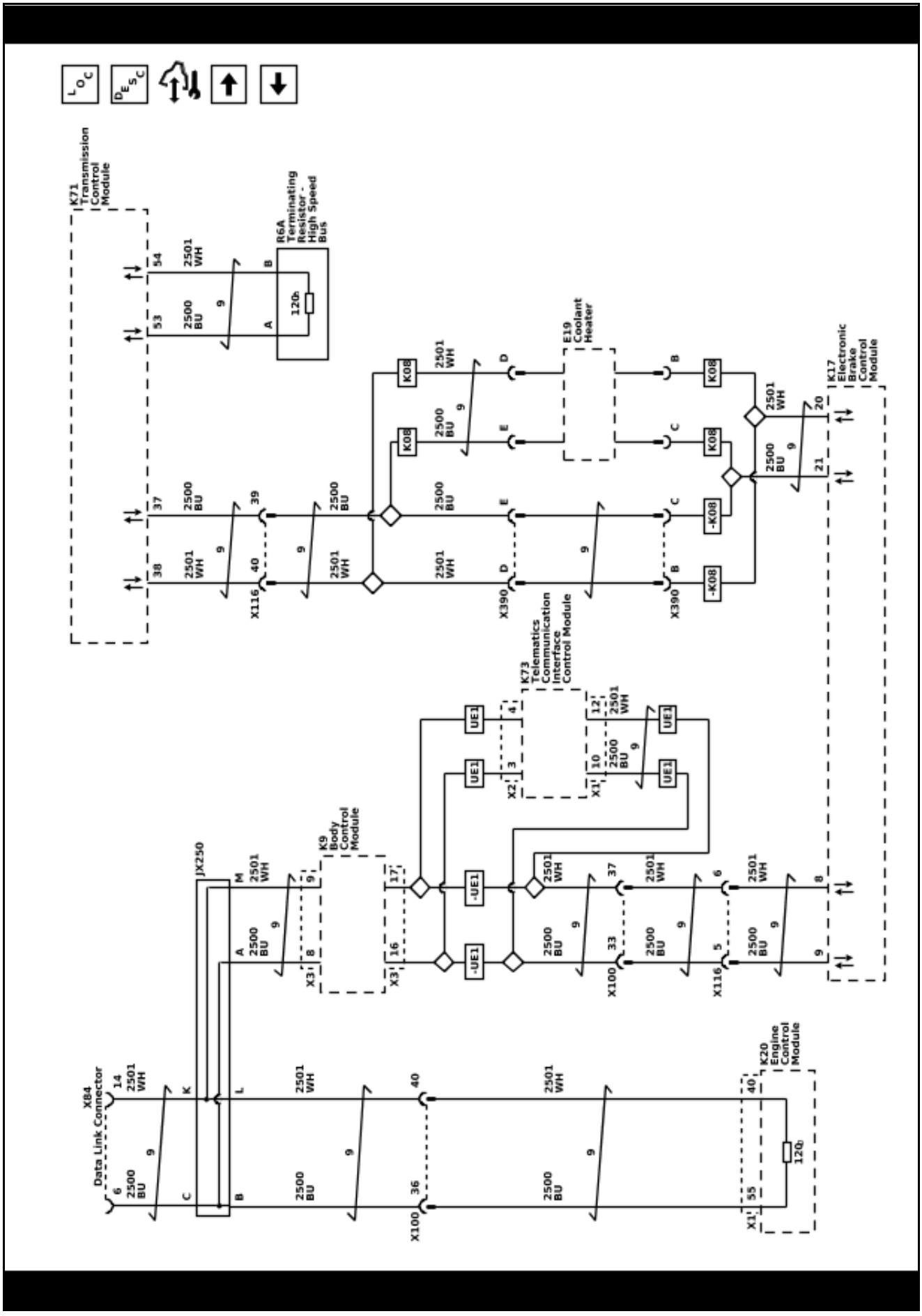
Data Communication Schematics (Low Speed GMLAN)



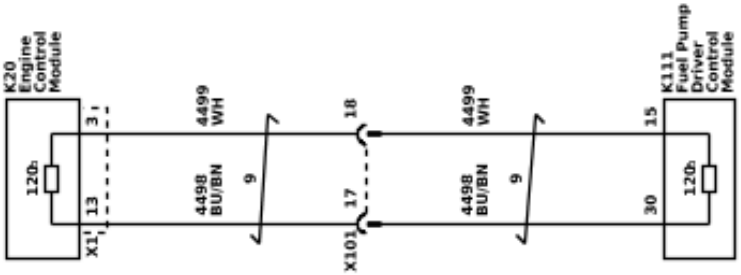
Data Communication Schematics (High Speed GMLAN (Gas))



Data Communication Schematics (High Speed GMLAN (Diesel))



Data Communication Schematics (Powertrain High Speed GMLAN (LV1/L8T))



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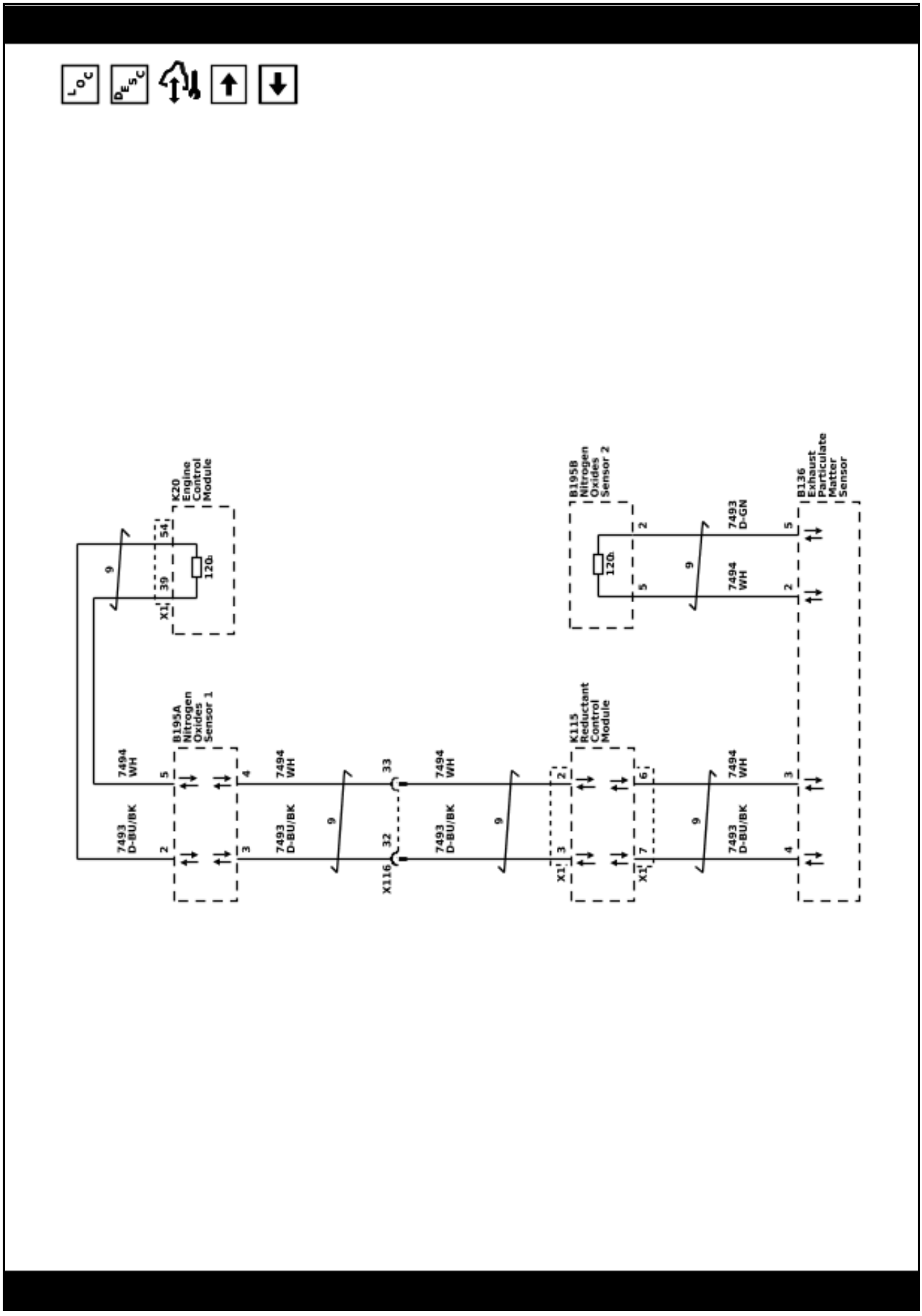
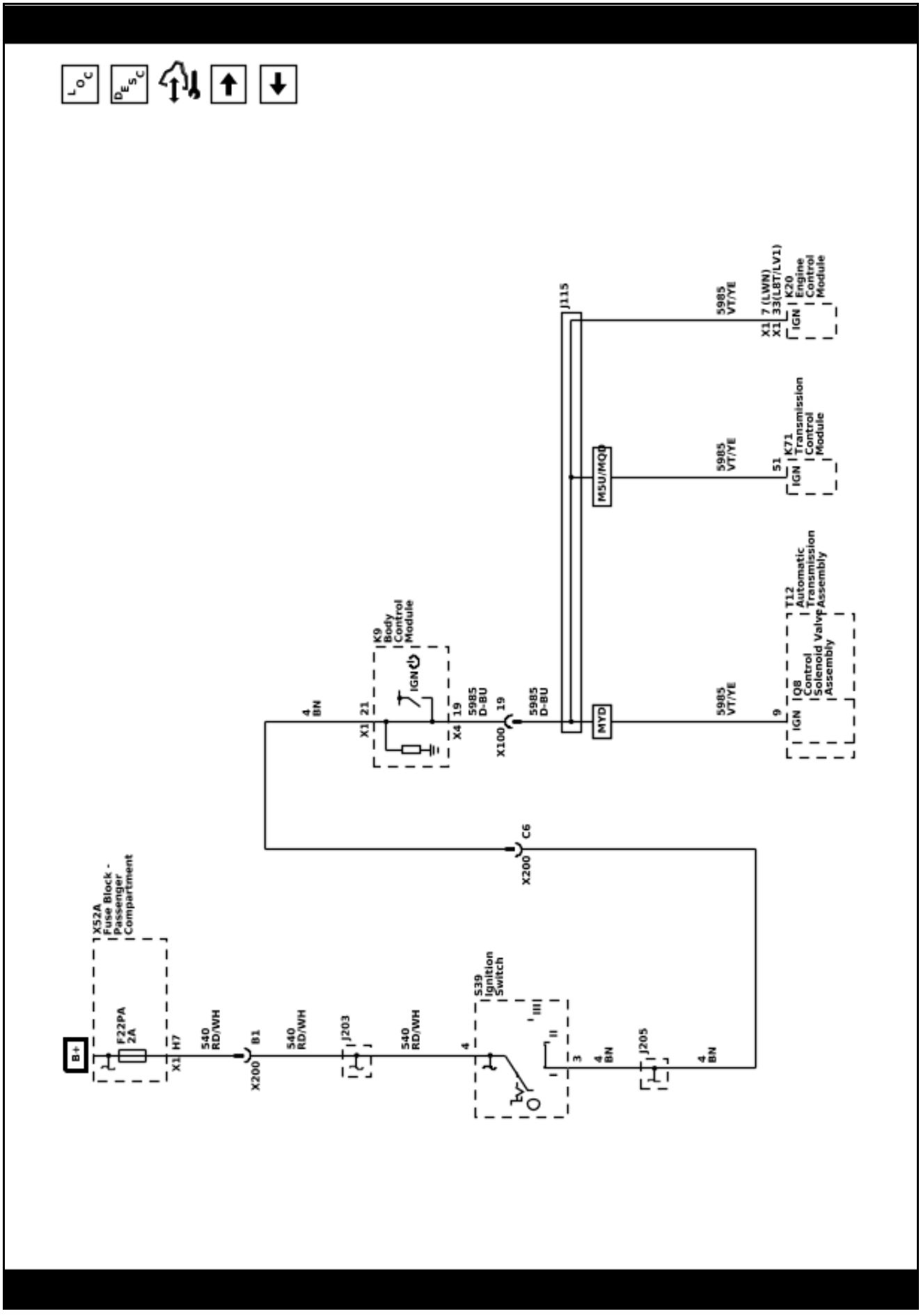
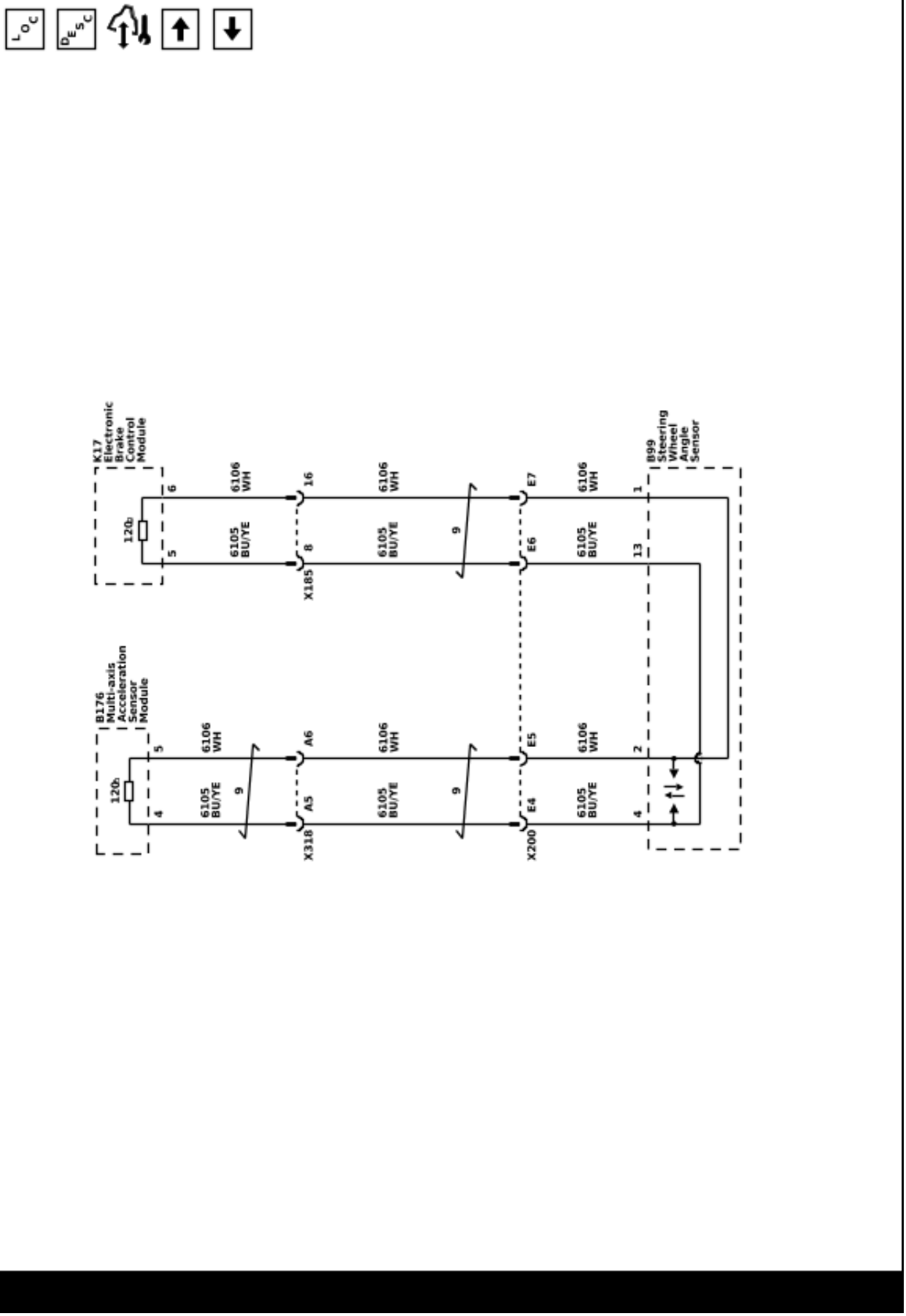
Data Communication Schematics (Powertrain High Speed GMLAN (LWN))



Data Communication Schematics (Accessory Wakeup)



Data Communication Schematics (Chassis High Speed GMLAN)



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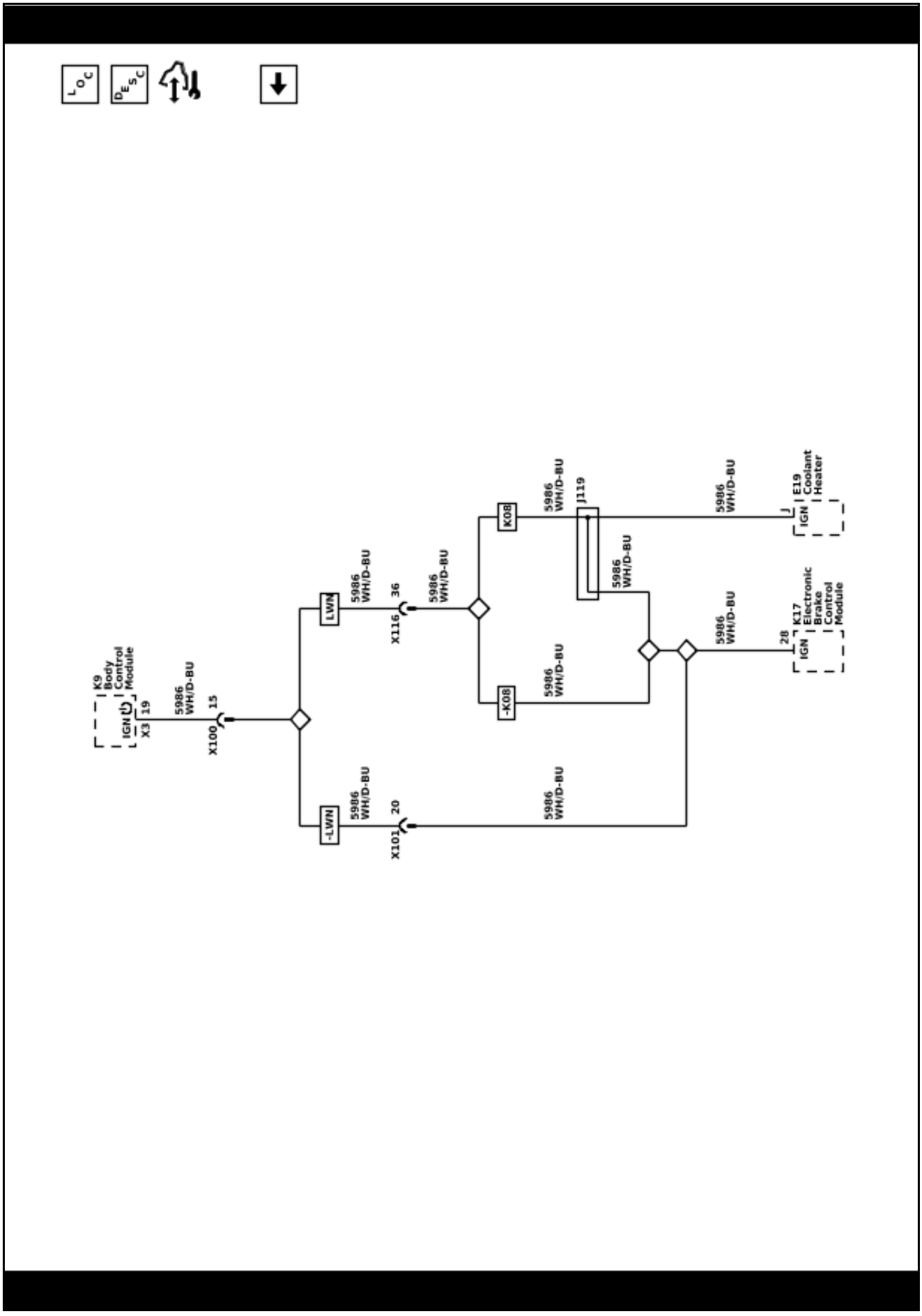
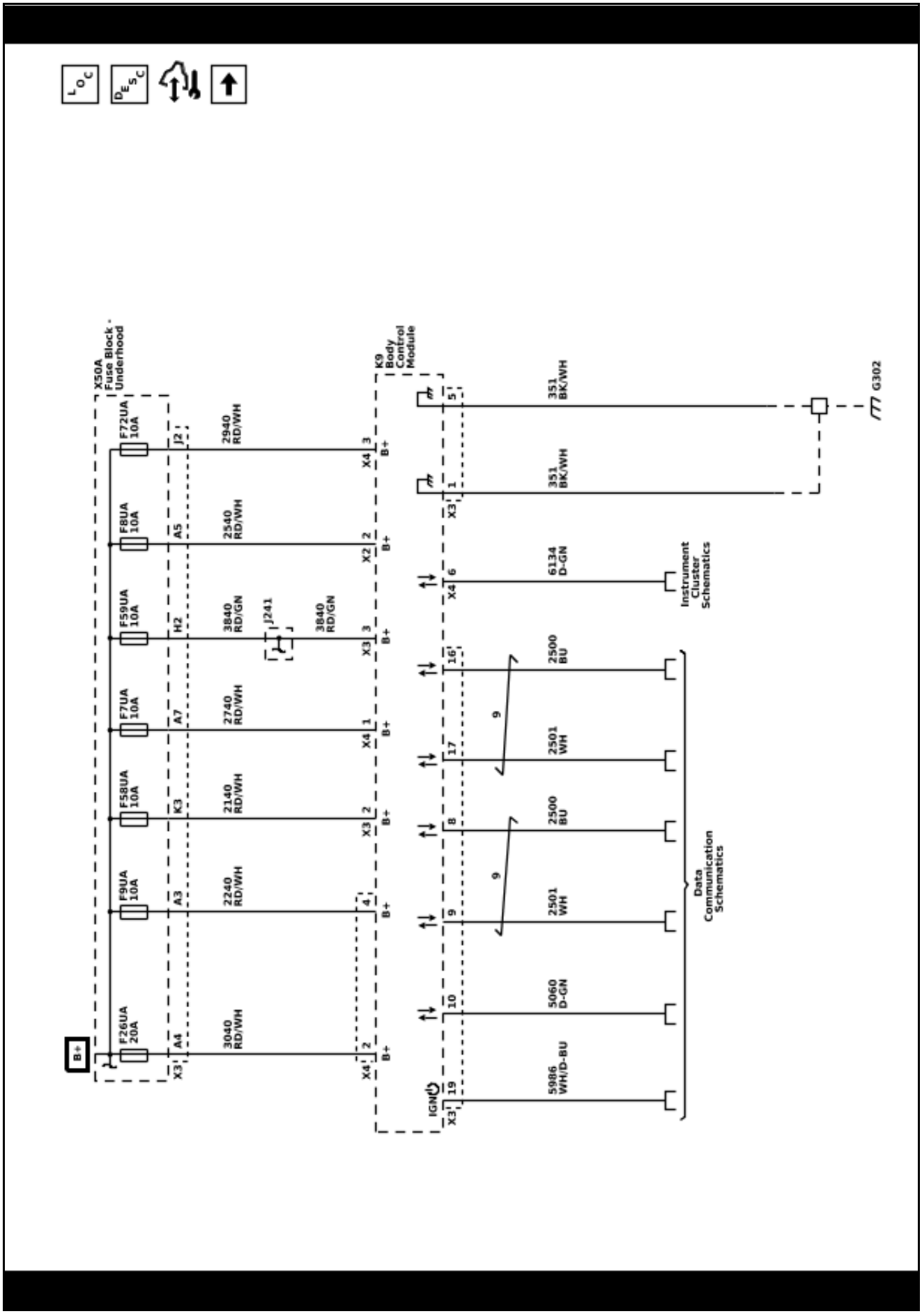
Data Communication Schematics (Communications Enable)

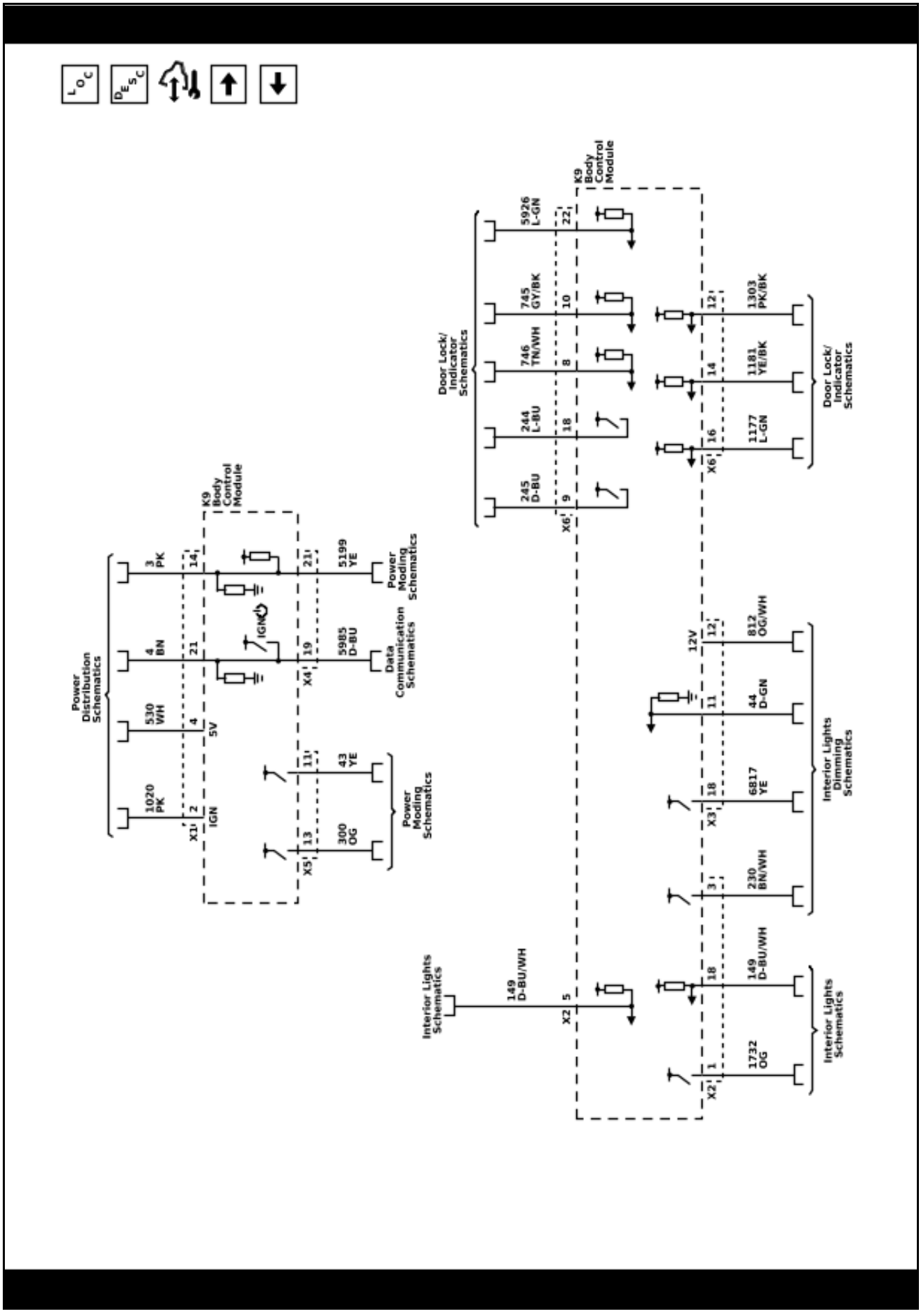


Body Control System Schematics (BCM Power, Ground and Serial Data)



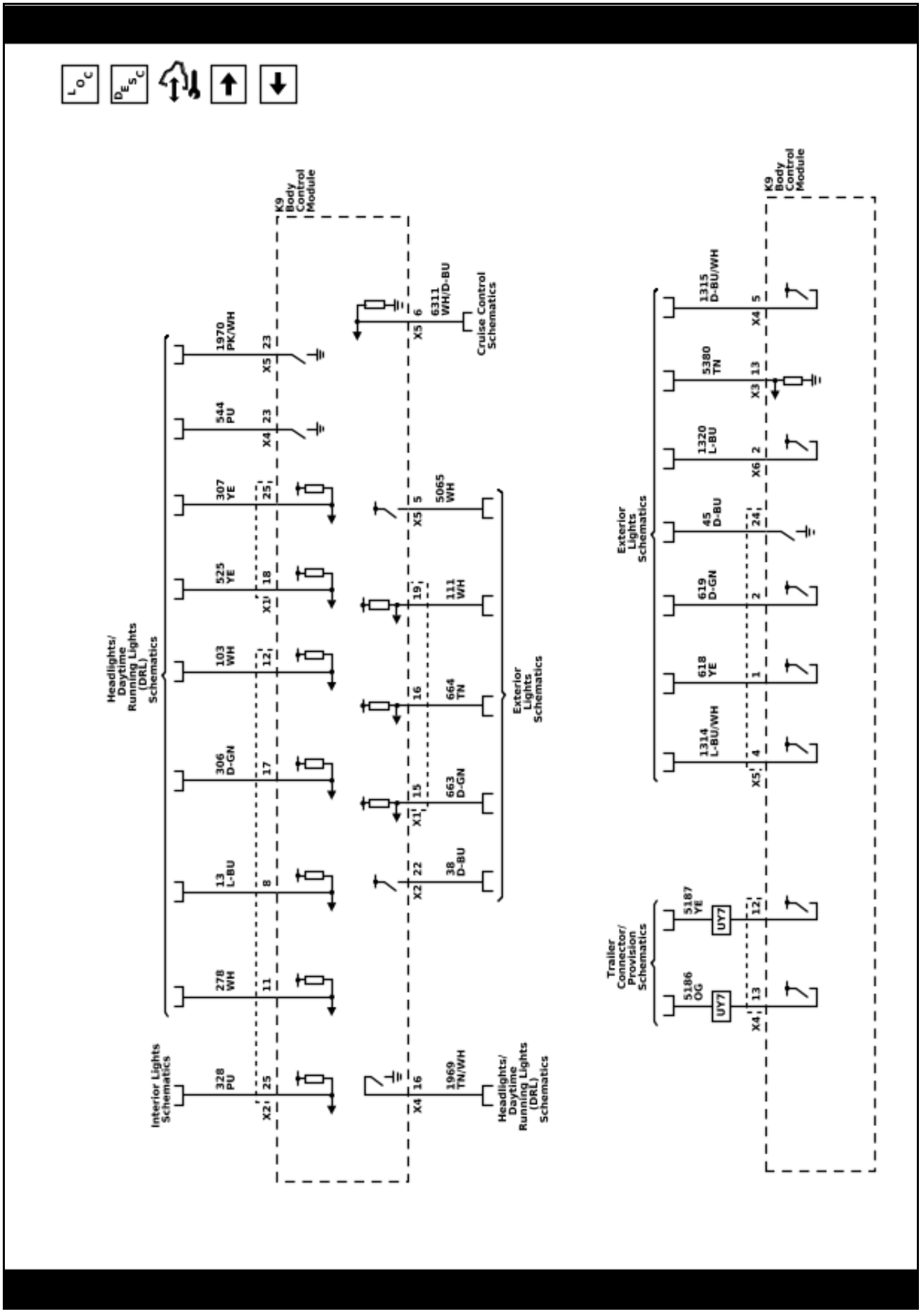
5483171

Body Control System Schematics (BCM Inputs and Outputs (1 of 3))



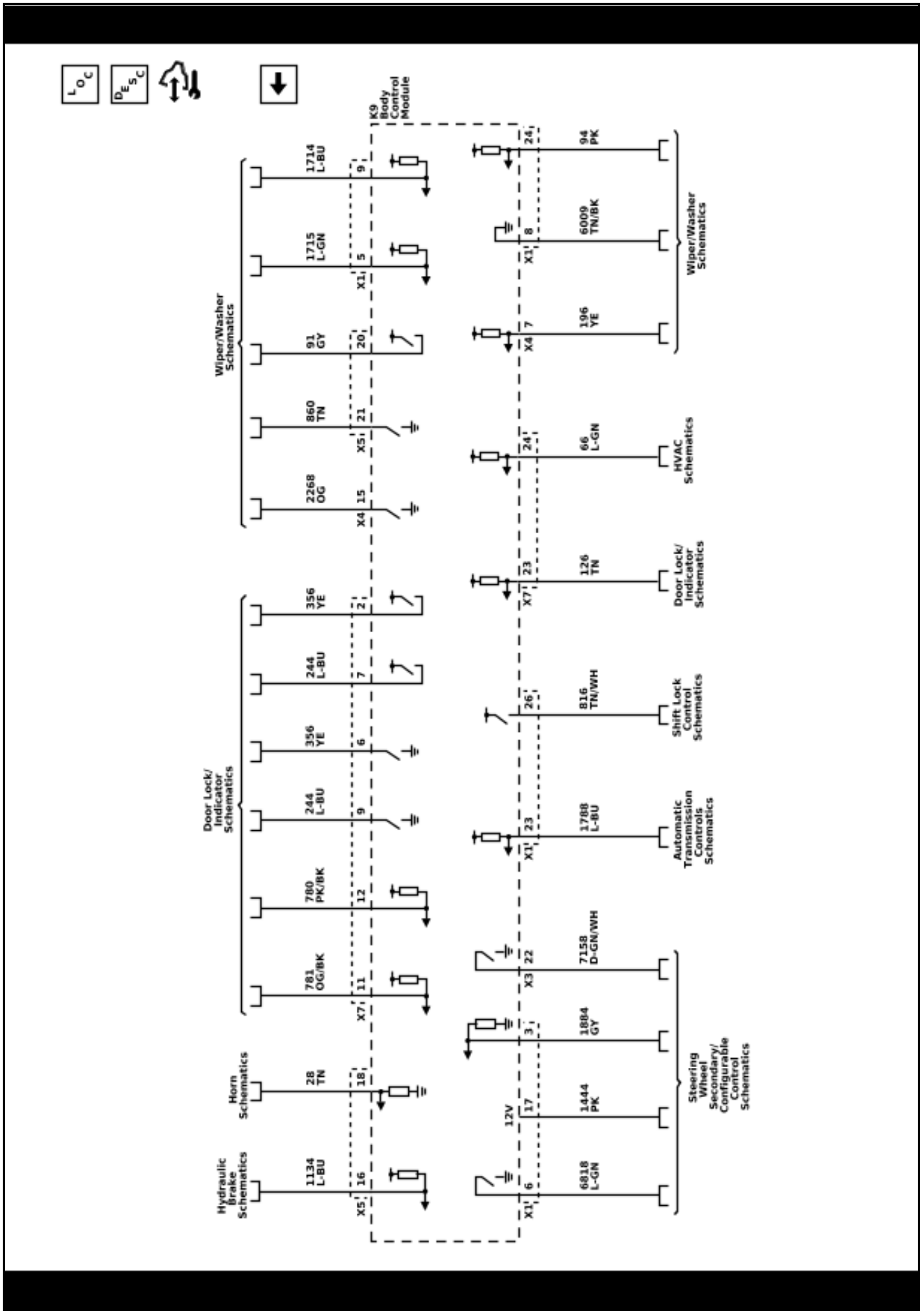
5483172

Body Control System Schematics (BCM Inputs and Outputs (2 of 3))



5483173

Body Control System Schematics (BCM Inputs and Outputs (3 of 3))



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Description and Operation

Body Control System Description and Operation

The body control system consists of the body control module (BCM), communications, and various input and outputs. Some inputs, outputs and messages require other modules to interact with the BCM. The BCM also has discrete input and output terminals to control the vehicle's body functions. The BCM is wired to the GMLAN High speed serial data bus and the GMLAN Low speed serial data bus and acts as a gateway between them. If the BCM does not communicate the vehicle will not start due to the inability of the Engine/ Powertrain Control Module (ECM/PCM) and Vehicle Theft Deterrent (VTD) Control Module to communicate without the BCM providing the gateway function.

Power Mode Master

This vehicles BCM functions as the power mode master (PMM). The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determination the power mode that will be sent over the serial data circuits to the other modules that need this information, and so the PMM will activate relays and other direct outputs of the PMM as needed. Refer to *Power Mode Description and Operation on page 6-432* for a complete description of power mode functions.

Serial Data Gateway

The BCM in this vehicle functions as a gateway or translator. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus for communication between the various modules. The gateway will interact with each network according to that network's transmission protocol.

One example of this necessary communication is the communication between the Engine/Powertrain Control Module (ECM/PCM) which is high speed serial data and Vehicle Theft Deterrent (VTD) Control Module which is low speed serial data. If these modules can not exchange information, the vehicle will not start.

Communication between the BCM and a scan tool can be on the high speed GMLAN network or low speed GMLAN network. If one network is lost, the BCM can still communicate with the scan tool. A lost communication DTC typically is set in modules other than the module with a communication failure.

Body Control Module

The various body control module (BCM) input and output circuits are described in the corresponding functional areas indicated on the BCM electrical schematics. Some BCM functions with the subsystems may be as a gateway only or as an enable for the system. The BCM related systems/subsystems include, but are not limited to the following:

- Antilock brake system (ABS)—Refer to ABS Description and Operation.
- Cruise control system—Refer to Cruise Control Description and Operation.
- Exterior lighting—Refer to *Exterior Lighting Systems Description and Operation on page 2-25*.
- Horn system —Refer to *Horns System Description and Operation on page 2-9*.
- Instrument cluster indicator control—Refer to Instrument Cluster Description and Operation.
- Interior lighting—Refer to *Interior Lighting Systems Description and Operation on page 2-26*.
- Power door lock system —Refer to *Power Door Locks Description and Operation on page 2-43*.
- Rear window defogger system —Refer to *Rear Window Defogger Description and Operation on page 2-6*.
- Remote function actuation (RFA) control—Refer to Keyless Entry System Description and Operation.
- Retained accessory power (RAP)—Refer to *Retained Accessory Power Description and Operation on page 6-433*.
- Shift lock control system —Refer to Automatic Transmission Shift Lock Control Description and Operation.
- Starting system—Refer to *Starting System Description and Operation on page 4-17*.
- Supplemental inflatable restraint (SIR) system — Refer to Supplemental Inflatable Restraint System Description and Operation.
- Theft deterrent—Refer to Immobilizer Description and Operation.
- Wiper/Washer system functions—Refer to Wiper/ Washer System Description and Operation.

Data Link Communications Description and Operation

Circuit Description

The communication among control modules is performed primarily through the GMLAN high speed serial data circuit and the GMLAN low speed serial data circuits. The modules that need real time communication are attached to the high speed GMLAN network. The body control module (BCM) is the serial data gateway between the networks. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus. The Local Interconnect Network (LIN) is another serial data communication network used on this vehicle which is dedicated to the remote compass module (RCM) subsystem. Below are more detailed descriptions of the individual networks. The gateway will interact with each network according to that network's transmission protocol. Refer to *Body Control System Description and Operation on page 6-16* for more information about the gateway.

GMLAN High Speed Circuit Description

The data link connector (DLC) allows a scan tool to communicate with the high speed GMLAN serial data circuit. The serial data is transmitted on two twisted wires that allow speed up to 500 Kb/s. The twisted pair is terminated with two 120 ohms resistors. The resistors are used to reduce noise on the High Speed GMLAN bus during normal vehicle operation. The high speed GMLAN is a differential bus. The high speed GMLAN serial data (+) and high speed GMLAN serial data (−) are driven to opposite extremes from a rest or idle level.

The idle level, which is approximately 2.5 volts, is considered recessive transmitted data and is interpreted as a logic 1. Driving the lines to their extremes, adds one volt to the high speed GMLAN serial data (+) and subtracts one volt from the high speed GMLAN serial data (−) wire. This dominant state is interpreted as a logic 0. GMLAN network management supports selective start up and is based on virtual networks. A virtual network is a collection of signals started in response to a vehicle event. The starting of a virtual network signifies that a particular aspect of the vehicles functionality has been requested. A virtual network is supported by virtual devices, which represents a collection of signals owned by a single physical device. So, any physical device can have one or more virtual devices. The signal supervision is the process of determining whether an expected signal is being received or not. Failsofting is the ability to substitute a signal with a default value or a default algorithm, in the absence of a valid signal. Some messages are also interpreted as a heartbeat of a virtual device. If such a signal is lost, the application will set a no communication code against the respective virtual device. This code is displayed on the Tech 2 screen as a code against the physical device. Note: a loss of serial data DTC does not represent a failure of the module that the code is set in.

GMLAN Low Speed Circuit Description

The data link connector (DLC) allows a scan tool to communicate with the low speed GMLAN serial data circuit. The serial data is transmitted over a single wire to the appropriate control modules. The transmission speed for GMLAN low speed is up to 83.33 Kb/s. Under normal vehicle operating conditions, the speed of the bus is 33.33 Kb/s. This protocol produces a simple pulse train sent out over the GMLAN low speed serial data bus. When a module pulls the bus high, 5 volts, this creates a dominant logic state or 0 on the bus. When the bus is pulled low, 0 volts, it is translated as a recessive logic state or 1. To wake the control modules connected to the GMLAN low speed serial data bus, a high voltage wake up pulse is sent out over the bus, the voltage level of the pules is +10 volts. Modules connected to the GMLAN low speed bus can be part of a virtual network as described in the previous paragraph. Most modules on the GMLAN low speed serial data bus are connected to the bus in a parallel configuration. Refer to the schematics to determine modules that are not in parallel

Local Interconnect Network (LIN) Description

The remote compass module (RCM) communicates with the BCM utilizing a single wire LIN communication link. The BCM is the gateway for the GMLAN network. All data is communicated on the LIN bus, therefore there are only 3 circuits to the RCM as follows:

- Ground
- LIN bus
- Voltage

Data Link Connector (DLC)

The data link connector (DLC) is a standardized 16-cavity connector. Connector design and location is dictated by an industry wide standard, and provides the following:

- Pin 1 GMLAN low speed communications terminal
- Pin 4 Scan tool power ground terminal
- Pin 5 Common signal ground terminal
- Pin 6 High speed GMLAN serial data bus (+) terminal
- Pin 14 High speed GMLAN serial data bus (−) terminal
- Pin 16 Scan tool power, battery positive voltage terminal

Serial Data Reference

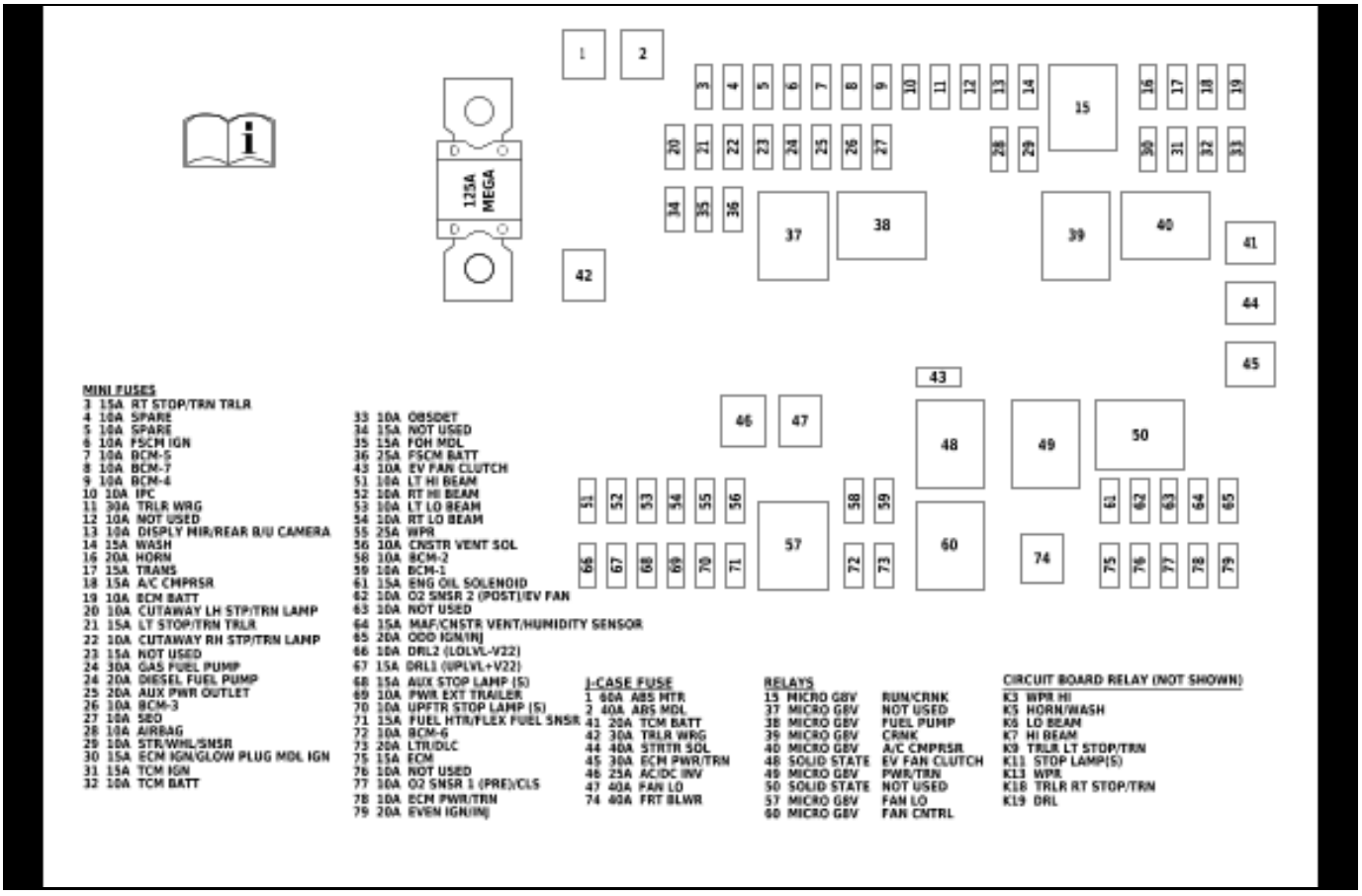
The scan tool communicates over the various busses on the vehicle. When a scan tool is installed on a vehicle, the scan tool will try to communicate with every module that could be optioned into the vehicle. If an option is not installed on the vehicle, the scan tool will display No Comm for that options specific control module. In order to avert misdiagnoses of No Communication with a specific module, refer to Data Link References for a list of modules, the bus they communicate with, and the RPO codes for a specific module.

Electrical Component and Inline Harness Connector End Views

Visual Identification

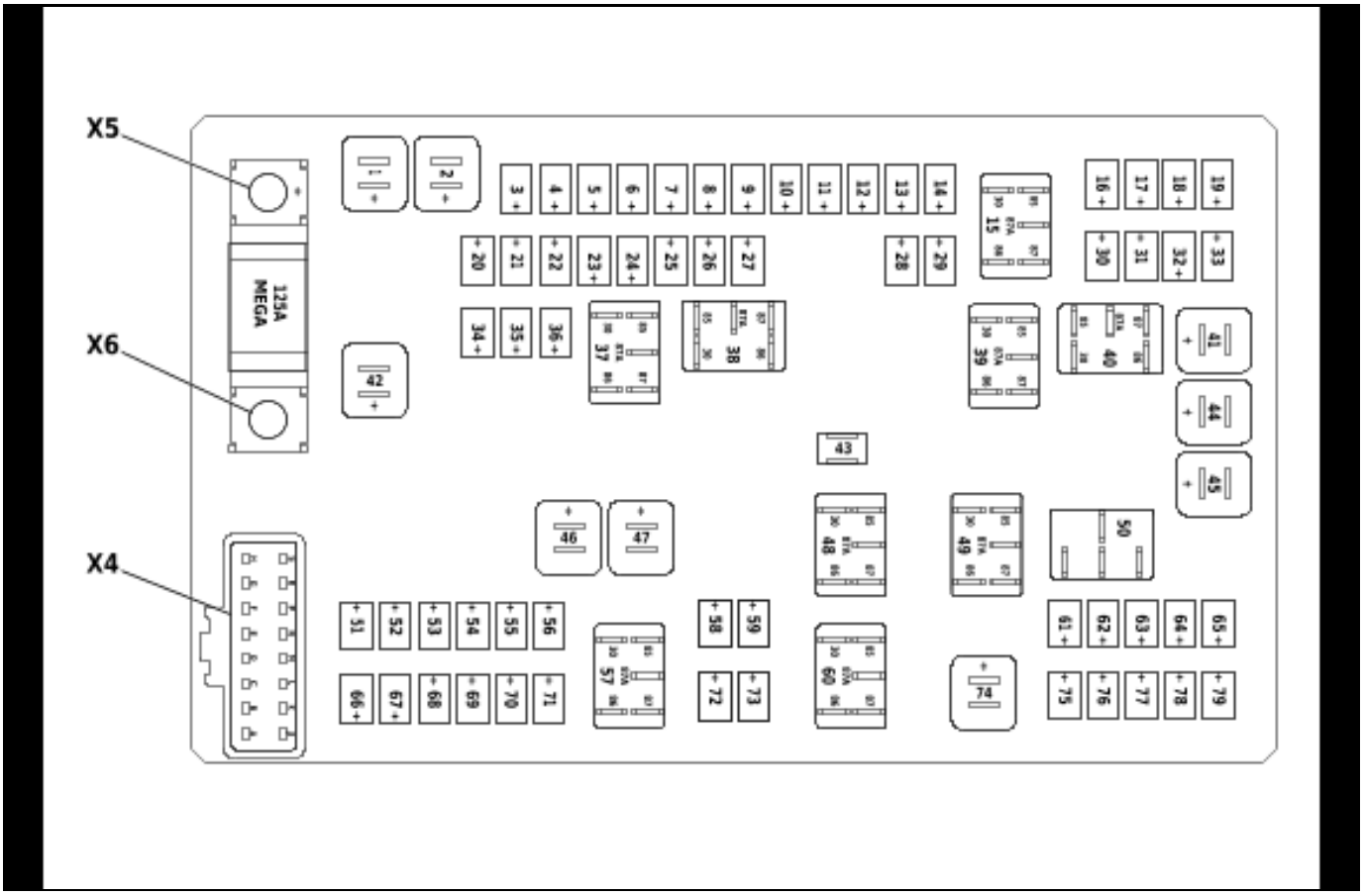
Electrical Center Identification Views

X50A Fuse Block - Underhood Label


MINI FUSES
1 15A RT STOP/TRN TRLR
2 10A SPARE
3 10A SPARE
4 10A FSCM IGN
5 10A BCM-5
6 10A BCM-7
7 10A BCM-4
8 10A IPC
9 30A TRLR WRG
10 10A NOT USED
11 10A DISPLY MIR/REAR R/U CAMERA
12 15A WASH
13 20A HORN
14 15A TRANS
15 15A A/C CMPRSR
16 10A BCM BATT
17 10A CUTAWAY LH STP/TRN LAMP
18 15A LT STOP/TRN TRLR
19 10A CUTAWAY RH STP/TRN LAMP
20 15A NOT USED
21 30A GAS FUEL PUMP
22 20A DIESEL FUEL PUMP
23 20A AUX PWR OUTLET
24 10A BCM-3
25 10A SEO
26 10A AIRBAG
27 10A STR/WHL/SNSR
28 15A ECM IGN/GLOW PLUG MDL IGN
29 15A TCM IGN
30 10A TCM BATT
33 10A OBSDET
34 15A NOT USED
35 15A FOH MDL
36 25A FSCM BATT
43 10A EV FAN CLUTCH
51 10A LT HI BEAM
52 10A RT HI BEAM
53 10A LT LO BEAM
54 10A RT LO BEAM
55 25A WPR
56 10A CNSTR VENT SOL
58 10A BCM-2
59 10A BCM-1
61 15A ENG OIL SOLENOID
62 10A O2 SNSR 2 (POST)/EV FAN
63 10A NOT USED
64 15A MAF/CNSTR VENT/HUMIDITY SENSOR
65 20A ODD IGN/INJ
66 10A DRL2 (LOLVL-V22)
67 15A DRL3 (UPLVL+V22)
68 15A AUX STOP LAMP (S)
69 10A PWR EXT TRAILER
70 10A UPFTR STOP LAMP (S)
71 15A FUEL HTR/FLEX FUEL SNSR
72 10A BCM-6
73 20A LTR/DLC
75 15A ECM
76 10A NOT USED
77 10A O2 SNSR 1 (PRE)/CLS
78 10A ECM PWR/TRN
79 20A EVEN IGN/INJ
J-CASE FUSE
1 60A ABS MTR
2 40A ABS MDL
41 20A TCM BATT
42 30A TRLR WRG
44 40A STRTR SOL
45 30A ECM PWR/TRN
46 25A AC/DC INV
47 40A FAN LO
74 40A FRT BLWR
RELAYS
15 MICRO G8V RUN/CRNK
37 MICRO G8V NOT USED
38 MICRO G8V FUEL PUMP
39 MICRO G8V CRNK
40 MICRO G8V A/C CMPRSR
48 SOLID STATE EV FAN CLUTCH
49 MICRO G8V PWR/TRN
50 SOLID STATE NOT USED
57 MICRO G8V FAN LO
60 MICRO G8V FAN CNTRL
CIRCUIT BOARD RELAY (NOT SHOWN)
K3 WPR HI
K5 HORN/WASH
K6 LO BEAM
K7 HI BEAM
K9 TRLR LT STOP/TRN
K11 STOP LAMP(S)
K13 WPR
K18 TRLR RT STOP/TRN
K19 DRL
125A MEGA

5164870

X50A Fuse Block - Underhood Top View



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Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Mega Fuses				
MEGA	—	MEGA	125A	• X52A Fuse Block - Passenger Compartment
Mini Fuses				
3	RT STOP/ TRN TRLR	F3UA	15A	• X88 Trailer Connector
4	SPARE	F4UA	10A	• Not Used
5	SPARE	F5UA	10A	• Not Used
6	FSCM IGN	F6UA	10A	• E11A Fuel Heater/Water in Fuel Sensor (LWN) • K38 Chassis Control Module (LV1/L8T)
7	BCM-5	F7UA	10A	• K9 Body Control Module
8	BCM-7	F8UA	10A	• K9 Body Control Module
9	BCM-4	F9UA	10A	• K9 Body Control Module
10	IPC	F10UA	10A	• P16 Instrument Cluster
11	TRLR WRG	F11UA	30A	• W8 Blunt Cut - Trailer Provision (UY7)
12	NOT USED	F12UA	10A	• Not Used
13	DISPLY MIR/ REAR B/U CAMERA	F13UA	10A	• A10 Inside Rearview Mirror (UVC) • B87 Rearview Camera (UVC)
14	WASH	F14UA	15A	• G24 Windshield Washer Pump

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
16	HORN	F16UA	20A	• P13 Horn Assembly
17	TRANS	F17UA	15A	• Not Used
18	A/C CMPRSR	F18UA	15A	• Q2 A/C Compressor Clutch (C60)
19	ECM BATT	F19UA	10A	• K20 Engine Control Module
20	CUTAWAY LH STP/TRN LAMP	F20UA	10A	• X405
21	LT STOP/ TRN TRLR	F21UA	15A	• X88 Trailer Connector
22	CUTAWAY RH STP/TRN LAMP	F22UA	10A	• X405
23	NOX SENSOR	F23UA	15A	• B136 Exhaust Particulate Matter Sensor (LWN) • B195A Nitrogen Oxides Sensor 1 (LWN) • B195B Nitrogen Oxides Sensor 2 (LWN)
24	DIESEL FUEL PUMP	F24UA	20A	• A7 Fuel Pump and Level Sensor Assembly (LWN)
25	AUX PWR OUTLET	F25UA	20A	• X80B Accessory Power Receptacle - Center Console 2
26	BCM-3	F26UA	10A	• K9 Body Control Module
27	SEO	F27UA	10A	• Not Used
28	AIRBAG	F28UA	10A	• K36 Inflatable Restraint Sensing and Diagnostic Module • S40 Passenger Air Bag Disable Switch (C99)
29	STR/WHL/SNSR	F29UA	10A	• Not Used
30	ECM IGN/GLOW PLUG MDL IGN	F30UA	15A	• K20 Engine Control Module
31	TCM IGN	F31UA	15A	• K71 Transmission Control Module (M5U/MQD) • T12 Automatic Transmission Assembly (MYD)
32	TCM BATT	F32UA	10A	• T12 Automatic Transmission Assembly (MYD)
33	OBSDET	F33UA	10A	• B218L Side Object Sensor Module - Left (UFT) • B218R Side Object Sensor Module - Right (UFT) • K182 Parking Assist Control Module (UD7)
34	NOX SENSOR	F34UA	15A	• K115 Reductant Control Module (LWN) • KR121B Reductant Control Module Relay 2 (LWN)
35	FOH MDL	F35UA	15A	• E19 Coolant Heater (K08)
36	FSCM BATT	F36UA	25A	• K38 Chassis Control Module (LV1/L8T)
43	EV FAN CLUTCH	F43UA	10A	• KR20F Cooling Fan Relay (LWN)
51	LT HI BEAM	F51UA	10A	• E4E Headlamp - Left High Beam
52	RT HI BEAM	F52UA	10A	• E4F Headlamp - Right High Beam
53	LT LO BEAM	F53UA	10A	• E4G Headlamp - Left Low Beam
54	RT LO BEAM	F54UA	10A	• E4H Headlamp - Right Low Beam
55	WPR	F55UA	25A	• KR12B Windshield Wiper Relay
56	CNSTR VENT SOL	F56UA	10A	• Q13 Evaporative Emission Vent Solenoid Valve (LV1/L8T)
58	BCM-2	F58UA	10A	• K9 Body Control Module
59	BCM-1	F59UA	10A	• K9 Body Control Module
61	CCV HTR/ENG OIL SOL	F61UA	15A	• E45 Positive Crankcase Ventilation Heater (LWN) • Q44 Engine Oil Pressure Control Solenoid Valve (L8T)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
62	O2 SNSR 2 (POST)/EV FAN	F62UA	10A	• B52D Heated Oxygen Sensor - Bank 1 Sensor 2 (LV1/L8T) • B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (LV1/L8T)
63	NOT USED	F63UA	10A	• Not Used
64	MAF/CNSTR VENT/HUMIDITY SENSOR	F64UA	15A	• B75C Multifunction Intake Air Sensor • Q12 Evaporative Emission Purge Solenoid Valve (LV1/L8T)
65	ODD IGN/INJ	F65UA	20A	• K20 Engine Control Module (LV1/L8T) • T8A Ignition Coil 1 (LV1/L8T) • T8C Ignition Coil 3 (LV1/L8T) • T8E Ignition Coil 5 (LV1/L8T) • T8G Ignition Coil 7 (L8T)
66	DRL2 (LOLVL-V22)	F66UA	10A	• Not Used
67	DRL1 (UPLVL+V22)	F67UA	15A	• E4G Headlamp - Left Low Beam
68	AUX STOP LAMP(S)	F68UA	15A	• X405 (Cutaway)
69	PWR EXT TRAILER	F69UA	10A	• W8 Blunt Cut - Trailer Provision (UY7)
70	UPFTR STOP LAMP(S)	F70UA	10A	• W25 Blunt Cut - Configurable Provision
71	FUEL HTR/FLEX FUEL SNSR	F71UA	15A	• Not Used
72	BCM-6	F72UA	10A	• K9 Body Control Module
73	LTR/DLC	F73UA	20A	• X80A Accessory Power Receptacle - Center Console 1 • X84 Data Link Connector
75	ECM	F75UA	15A	• K20 Engine Control Module
76	NOT USED	F76UA	10A	• Not Used
77	O2 SNSR 1 (PRE)/CLS	F77UA	10A	• B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (LV1/L8T) • B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (LV1/L8T) • K20 Engine Control Module (LWN)
78	ECM PWR/TRN	F78UA	10A	• Not Used
79	EVEN IGN/INJ	F79UA	20A	• K20 Engine Control Module (LV1/L8T) • T8B Ignition Coil 2 (LV1/L8T) • T8D Ignition Coil 4 (LV1/L8T) • T8F Ignition Coil 6 (LV1/L8T) • T8H Ignition Coil 8 (L8T)
J-Case Fuses				
1	ABS MTR	F1UA	60A	• K17 Electronic Brake Control Module
2	ABS MDL	F2UA	40A	• K17 Electronic Brake Control Module
41	TCM BATT	F41UA	20A	• K71 Transmission Control Module (M5U/MQD)
42	TRLR WRG	F42UA	30A	• X88 Trailer Connector (UY7)
44	STRTR SOL	F44UA	40A	• M64 Starter Motor
45	ECM PWR/TRN	F45UA	30A	• K20 Engine Control Module
46	SPARE	F46UA	30A	• Not Used (Without KI4)

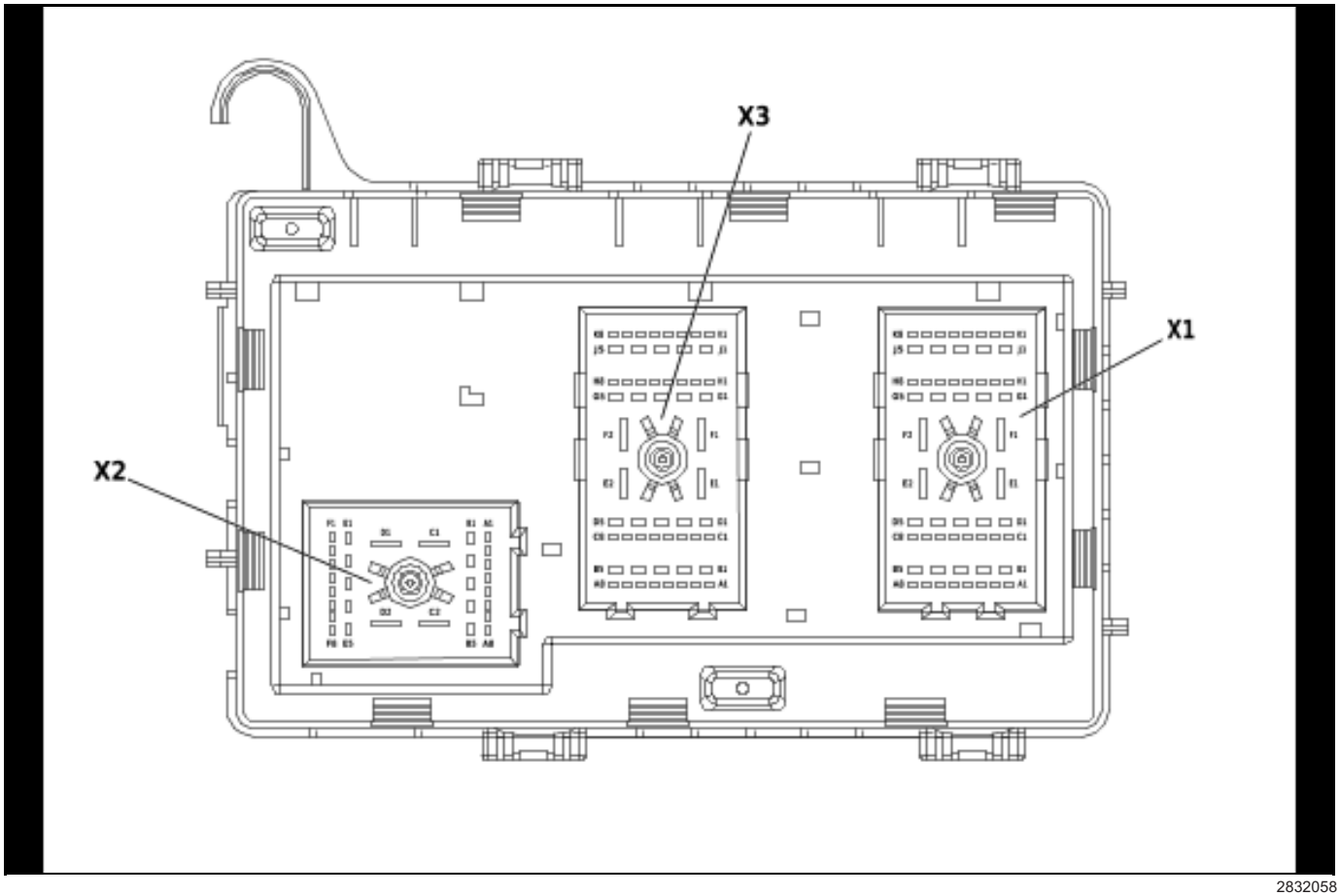
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
46	AC/DC INV	F46UA	25A	• T1 Accessory DC/AC Power Iverter Module (KI4)
47	FAN LO	F47UA	40A	• Not Used
74	FRT BLWR	F74UA	40A	• R3 Blower Motor Resistor
Relays				
15	RUN/CRNK	KR93 Ignition Run/ Crank Relay	—	• F6UA • F10UA • F12UA • F13UA • F17UA • F28UA • F29UA • F30UA • F31UA
37	NOX SENSOR	KR121B Reductant Control Module Relay 2	—	• F23UA
38	FUEL PUMP	KR23A Fuel Pump Relay	—	• F24UA
39	CRNK	KR27 Starter Relay	—	• F44UA
40	A/C CMPRSR	KR29 A/C Compressor Clutch Relay	—	• F18UA
48	EV FAN CLUTCH	KR20F Cooling Fan Relay	—	• Q85 Cooling Fan Clutch (LWN)
49	PWR/TRN	KR75 Engine Controls Ignition Relay	—	• F45UA • F61UA • F62UA • F63UA • F64UA • F65UA • F71UA • F75UA • F76UA • F77UA • F78UA • F79UA
50	NOT USED	KR150 Relay - Spare	—	• Not Used
57	FAN LO	KR20C Cooling Fan Low Speed Relay	—	• Not Used
60	FAN CNTRL	KR20E Cooling Fan Speed Control Relay	—	• Not Used
Important: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
K3	WPR HI	KR12C Windshield Wiper Speed Control Relay	—	• M75 Windshield Wiper Motor
K5	HORN/WASH	KR3 Horn Relay, KR11 Windshield Washer Pump Relay	—	• F14UA • F16UA
K6	LO BEAM	KR49 Headlamp Low Beam Relay	—	• F53UA • F54UA

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
K7	HI BEAM	KR48 Headlamp High Beam Relay	—	• F51UA • F52UA
K9	TRLR LT STOP/TRN	KR63L Trailer Stop/Turn Signal Lamp Relay - Left	—	• F5UA • F20UA • F21UA
K11	STOP LAMP(S)	KR59 Stop Lamp Relay	—	• F68UA • F69UA • F70UA
K13	WPR	KR12B Windshield Wiper Relay	—	• KR12C Windshield Wiper Speed Control Relay
K18	TRLR RT STOP/TRN	KR63R Trailer Stop/Turn Signal Lamp Relay - Right	—	• F3UA • F4UA • F22UA
K19	DRL	KR42 Daytime Running Lamps Relay	—	• F66UA • F67UA

X50A Fuse Block - Underhood Bottom View



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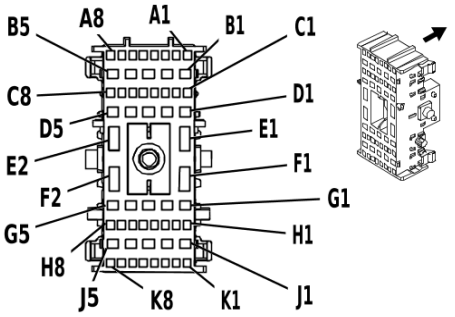
X50A Fuse Block - Underhood X1



2083844

Connector Part Information

Harness Type: Engine
OEM Connector: 15477823
Service Connector: 13574911
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	19367554	J-35616-44 (YE)	J-38125-558

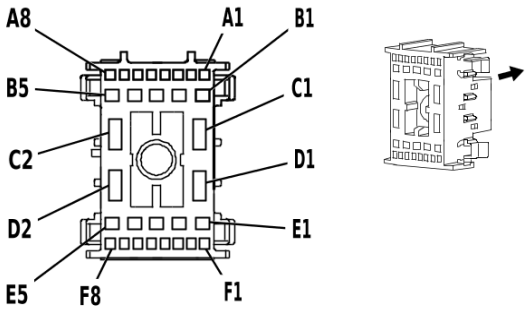
X50A Fuse Block - Underhood X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	RD/WH	140	Secondary Fused Battery Positive Voltage 1	I	—
	0.5	RD/BN	440	Secondary Fused Battery Positive Voltage 4	I	—
A2	0.5	RD/L-GN	1840	Secondary Fused Battery Positive Voltage 18	I	—
A3 - A8	—	—	—	Not Occupied	—	—
B1	0.5	RD/BU	840	Secondary Fused Battery Positive Voltage 8	II	—
B2	0.5	BN/L-GN	59	A/C Compressor Clutch Control	II	—
B3	—	—	—	Not Occupied	—	—
B4	1	BN/GY	29	Horn Control	II	—
B5	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage 4	II	—
C1	—	—	—	Not Occupied	—	—
C2	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	I	—
C3 - C5	—	—	—	Not Occupied	—	—
C6	0.5	YE/BK	625	Starter Enable Relay Control	I	—
C7	1	BK	1250	Ground 12	I	—
C8	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	I	—
D1	0.75	RD/L-GN	1840	Secondary Fused Battery Positive Voltage 18	II	—
D2	—	—	—	Not Occupied	—	—
D3	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage 21	II	—
D4	0.75	BK	550	Ground 5	II	—
D5	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
E1	4	YE	6	Starter Solenoid Actuator Crank Ignition Voltage	III	—
	5	PU	6	Starter Solenoid Actuator Crank Ignition Voltage	III	—
E2	—	—	—	Not Occupied	—	—
F1	2.5	VT/GY	1439	Run/Crank Ignition 1 Voltage 14	III	—
	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	III	—
F2	5	RD/BK	542	Primary Fused Battery Positive Voltage 5	III	—
	5	RD/PU	542	Primary Fused Battery Positive Voltage 5	III	—
G1	0.75	VT/GY	1039	Run/Crank Ignition 1 Voltage 10	II	—
G2	1	VT/GY	1039	Run/Crank Ignition 1 Voltage 10	II	—
	1	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
G3	—	—	—	Not Occupied	—	—
G4	0.75	VT/WH	1939	Run/Crank Ignition 1 Voltage 19	II	—
	0.75	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	—
G5	0.5	VT/WH	1939	Run/Crank Ignition 1 Voltage 19	II	—
H1 - H4	—	—	—	Not Occupied	—	—
H5	0.5	WH/BK	2366	Cooling Fan Speed Control Signal	I	—
H6	0.5	WH	2368	Cooling Fan Control	I	—
H7 - H8	—	—	—	Not Occupied	—	—
J1	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage 12	II	—
J2	1	VT/BK	1239	Run/Crank Ignition 1 Voltage 12	II	—
	1	VT/BU	5292	Powertrain Main Relay Fused Supply 3	II	—
J3	—	—	—	Not Occupied	—	—
J4	0.5	VT/BU	5292	Powertrain Main Relay Fused Supply 3	II	—
	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
J5	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	II	—
K1	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
K2 - K3	—	—	—	Not Occupied	—	—
K4	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
K5 - K7	—	—	—	Not Occupied	—	—
K8	0.5	YE	5991	Powertrain Relay Coil Control	I	—

X50A Fuse Block - Underhood X2



1665657

Connector Part Information

Harness Type: Chassis
OEM Connector: 13567518
Service Connector: 19180280
Description: 30-Way F 150, 280 GT Metri-Pack 800 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575790	J-35616-2A (GY)	J-38125-215A
II	19303704	J-35616-35 (VT)	J-38125-215A
III	19303704	J-35616-4A (PU)	J-38125-215A
IV	19303708	J-35616-35 (VT)	J-38125-215A
V	19366953	J-35616-44 (YE)	J-38125-558
VI	19367554	J-35616-44 (YE)	J-38125-558

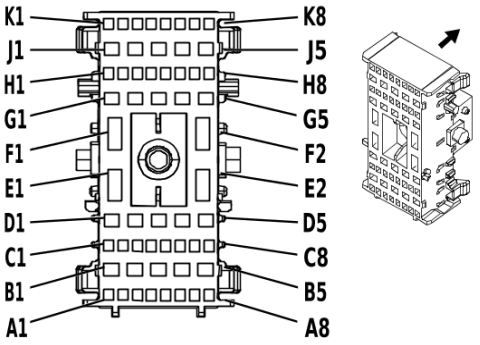
X50A Fuse Block - Underhood X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	—	—	—	Not Occupied	—	—
A2	1	YE	618	Left Rear Turn Signal Lamp Control	I	—
A3	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
A4	1	D-GN	619	Right Rear Turn Signal Lamp Control	I	—
A5	—	—	—	Not Occupied	—	—
A6	0.5	RD/WH	4042	Primary Fused Battery Positive Voltage 40	I	—
	0.5	RD/BK	4042	Primary Fused Battery Positive Voltage 40	I	—
A7	1	BN	2109	Trailer Park Lamp Control	I	—
A8	0.5	VT	2739	Run/Crank Ignition 1 Voltage 27	I	—
	0.75	VT/GY	2739	Run/Crank Ignition 1 Voltage 27	I	—
B1	2.5	GY	120	Fuel Pump Control	IV	—
B2	—	—	—	Not Occupied	—	—
B3	1	GY	3672	NOx Sensor 2 Control	II	—
B4	2	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	IV	—
B5	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	III	—
	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
C1	—	—	—	Not Occupied	—	—
C2	2.5	RD/VT	1640	Secondary Fused Battery Positive Voltage 16	VI	—
D1	3	RD/BK	742	Primary Fused Battery Positive Voltage 7	V	—
D2	5	RD/YE	442	Primary Fused Battery Positive Voltage 4	VI	—
E1	—	—	—	Not Occupied	—	—
E2	0.8	L-BU	1320	Center High Mounted Stop Lamp Control 2	III	—
E3	3	D-BU	47	Trailer Auxiliary Control	IV	—
E4	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	III	—
E5	2.5	RD/VT	1940	Secondary Fused Battery Positive Voltage 19	IV	—
F1	1	L-GN	1624	Trailer Backup Lamp Control	I	—
F2	0.5	RD/L-GN	40	Secondary Fused Battery Positive Voltage	I	—
F3	1	BN	2109	Trailer Park Lamp Control	I	—
F4	0.5	L-GN/BU	3889	Powertrain Sensor Bus Relay Control	I	—
F5	0.5	RD/L-GN	2440	Secondary Fused Battery Positive Voltage 24	I	—

X50A Fuse Block - Underhood X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
F6	0.5	RD/WH	4042	Primary Fused Battery Positive Voltage 40	I	—
	0.5	RD/BK	4042	Primary Fused Battery Positive Voltage 40	I	—
F7	1	D-GN	619	Right Rear Turn Signal Lamp Control	I	—
F8	1	YE	618	Left Rear Turn Signal Lamp Control	I	—

X50A Fuse Block - Underhood X3



1581655

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15477822
Service Connector: 19115189
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	13575754	J-35616-4A (PU)	J-38125-215A
IV	13575756	J-35616-4A (PU)	J-38125-215A
V	19366953	J-35616-44 (YE)	J-38125-558

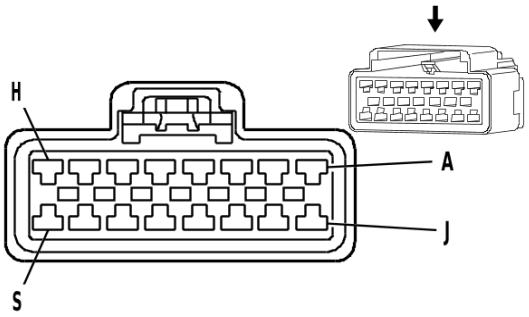
X50A Fuse Block - Underhood X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	PK	1639	Run/Crank Ignition 1 Voltage 16	I	—
A2	0.35	RD/WH	2840	Secondary Fused Battery Positive Voltage 28	I	—
A3	0.8	RD/WH	2240	Secondary Fused Battery Positive Voltage 22	I	—
A4	0.8	RD/WH	3040	Secondary Fused Battery Positive Voltage 30	I	—
A5	0.5	RD/WH	2540	Secondary Fused Battery Positive Voltage 25	I	—
A6	—	—	—	Not Occupied	—	—
A7	0.8	RD/WH	2740	Secondary Fused Battery Positive Voltage 27	I	—
A8	—	—	—	Not Occupied	—	—
B1	3	RD/WH	3940	Secondary Fused Battery Positive Voltage 39	IV	—

X50A Fuse Block - Underhood X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
B2	0.35	PK	1139	Run/Crank Ignition 1 Voltage 11	II	—
B3	0.35	PK	1139	Run/Crank Ignition 1 Voltage 11	II	—
B4	1	RD/WH	1040	Secondary Fused Battery Positive Voltage 10	II	—
B5	1	BN	2109	Trailer Park Lamp Control	II	—
C1	0.5	PK	239	Run/Crank Ignition 1 Voltage 2	I	—
C2 - C3	—	—	—	Not Occupied	—	—
C4	0.35	OG	5186	Left Trailer Turn Signal Lamp Control	I	—
C5	1	BN	2109	Trailer Park Lamp Control	I	—
C6	1	D-GN	619	Right Rear Turn Signal Lamp Control	I	—
C7	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
C8	1	YE	618	Left Rear Turn Signal Lamp Control	I	—
D1	0.5	OG	228	Windshield Washer Pump Control	II	—
D2	0.35	YE	5199	Run/Crank Relay Coil Control	II	—
D3	1	L-GN	1624	Trailer Backup Lamp Control	II	—
D4	3	D-BU	47	Trailer Auxiliary Control	IV	—
D5 - E1	—	—	—	Not Occupied	—	—
E2	3	RD/WH	4140	Secondary Fused Battery Positive Voltage 41	V	—
F1 - F2	—	—	—	Not Occupied	—	—
G1	0.8	RD/WH	640	Secondary Fused Battery Positive Voltage 6	II	—
G2	0.35	OG	2268	Windshield Washer Relay Control	II	—
G3	0.35	YE	5187	Right Trailer Turn Signal Lamp Control	II	—
G4	2	PU	92	Windshield Wiper Motor High Speed Control	III	—
G5	2	D-GN	95	Windshield Wiper Motor Low Speed Control	III	—
H1	—	—	—	Not Occupied	—	—
H2	1	RD/WH	3840	Secondary Fused Battery Positive Voltage 38	I	—
H3	0.35	TN	28	Horn Relay Control	I	—
H4	0.35	PK/WH	1970	Headlamp Low Beam Relay Control 3	I	—
H5	0.35	PU	544	DRL Relay Control	I	—
H6	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	I	—
H7	0.5	WH	5065	Stop Lamp Relay Coil Control	I	—
H8	0.35	TN	860	Windshield Wiper Switch High Signal	I	—
J1	1	RD/WH	640	Secondary Fused Battery Positive Voltage 6	II	—
J2	0.8	RD/WH	2940	Secondary Fused Battery Positive Voltage 29	II	—
J3	0.8	BN	2309	Front Park Lamp Control	II	—
J4	0.8	D-BU/WH	1315	Right Front Turn Signal Lamp Control	II	—
J5 - K2	—	—	—	Not Occupied	—	—
K3	0.8	RD/WH	2140	Secondary Fused Battery Positive Voltage 21	I	—
K4	0.5	L-BU	20	Stop Lamp Control	I	—
K5	0.5	L-BU/WH	6311	Cruise/ETC/TCC Brake Signal	I	—
K6	—	—	—	Not Occupied	—	—
K7	0.8	L-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
K8	0.35	TN/WH	1969	Headlamp High Beam Relay Control	I	—

X50A Fuse Block - Underhood X4



823321

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15326952
Service Connector: 15306426
Description: 16-Way F 280 GT Series (BK)

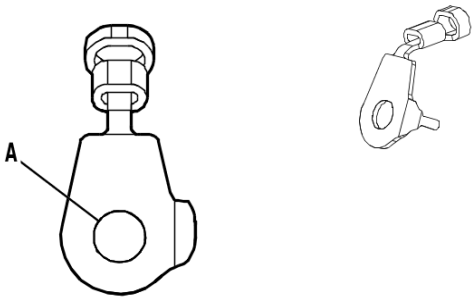
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575753	J-35616-4A (PU)	J-38125-215A

X50A Fuse Block - Underhood X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	—	Not Occupied	—	—
B	0.5	BN	2309	Front Park Lamp Control	I	—
	0.5	GY/BN	2309	Front Park Lamp Control	I	—
C	0.5	GY/BN	2309	Front Park Lamp Control	I	—
	0.5	BN	2309	Front Park Lamp Control	I	—
D	0.75	L-GN/VT	1315	Right Front Turn Signal Lamp Control	I	—
	0.8	D-BU/WH	1315	Right Front Turn Signal Lamp Control	I	—
E	0.75	D-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
	0.8	L-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
F	0.5	YE	712	Left Headlamp Low Beam Control	I	—
	0.8	YE	712	Left Headlamp Low Beam Control	I	—
G - J	—	—	—	Not Occupied	—	—
K	0.5	YE	712	Left Headlamp Low Beam Control	I	—
L	—	—	—	Not Occupied	—	—
M	0.75	WH	311	Right Headlamp High Beam Control	I	—
	0.8	L-GN/BK	311	Right Headlamp High Beam Control	I	—
N	0.5	D-GN/WH	711	Left Headlamp High Beam Control	I	—
	0.75	WH	711	Left Headlamp High Beam Control	I	—
P	0.75	YE	312	Right Headlamp Low Beam Control	I	—
	0.8	TN/WH	312	Right Headlamp Low Beam Control	I	—
R - S	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X5



4831180

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12160208
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

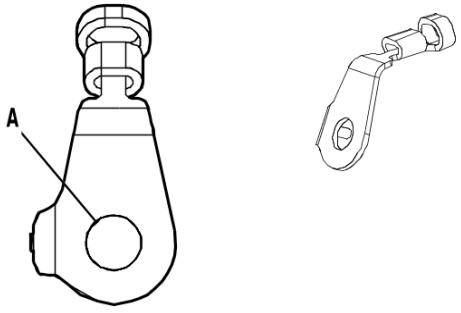
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

X50A Fuse Block - Underhood X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	1	Unfused Battery Positive Voltage	I	—

X50A Fuse Block - Underhood X6



4831192

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13595106
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

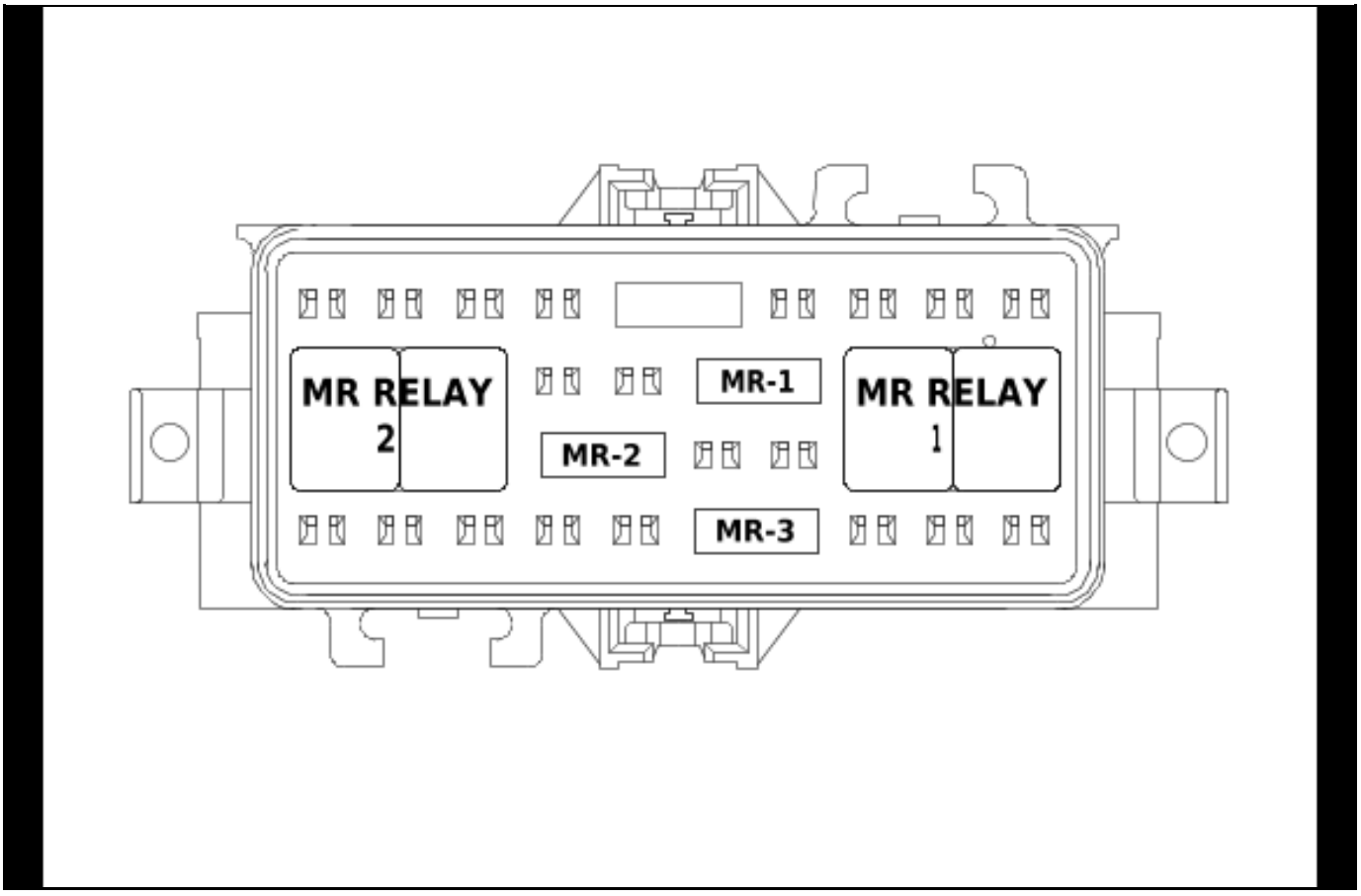
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

X50A Fuse Block - Underhood X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	842	Primary Fused Battery Positive Voltage 8	I	—

X50B Fuse Block - Underhood Auxiliary Top View



4845612

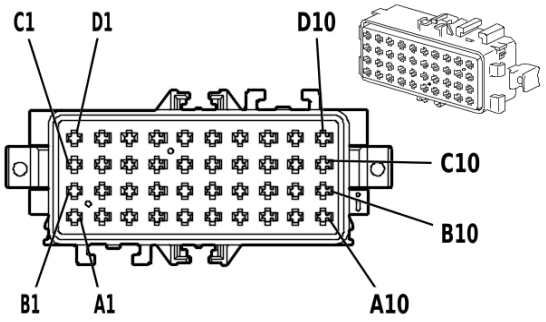
Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	MR-2	F1UB	30A	• KR161A Configurable Provision Relay 1 (9L7)
F2	MR-1	F2UB	30A	• KR161B Configurable Provision Relay 2 (9L7)
F3	MR-3	F3UB	10A	• W25 Blunt Cut - Configurable Provision (9L7)
Relays				
R1	MR RELAY 1	KR90 Door Unlock Relay (WRF), KR161B Configurable Provision Relay 2 (9L7)	—	• W25 Blunt Cut - Configurable Provision

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
R2	MR RELAY 2	KR97 Door Lock Relay (WRF), KR161A Configurable Provision Relay 1 (9L7)	—	• W25 Blunt Cut - Configurable Provision

X50B Fuse Block - Underhood Auxiliary



2002692

Connector Part Information

Harness Type: Accessory
OEM Connector: 13607200
Service Connector: Service by Harness - See Part Catalog
Description: 40-Way F 2.8 MCP Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

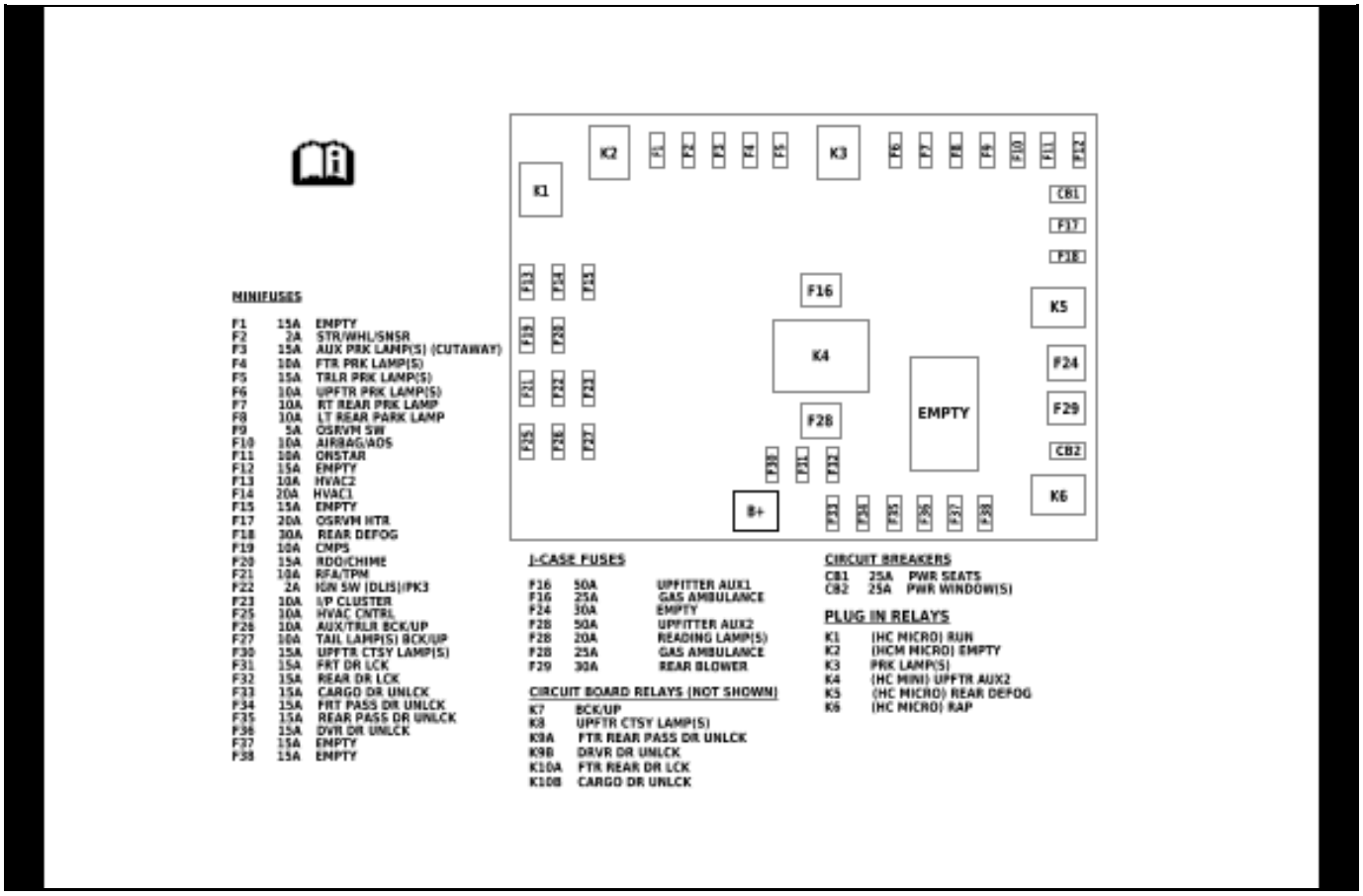
X50B Fuse Block - Underhood Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A5	—	—	—	Not Occupied	—	—
A6	1	RD/BK	102	Battery Positive Voltage 1	I	—
A7	1	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
A8 - A10	—	—	—	Not Occupied	—	—
B1	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
B2	—	—	—	Not Occupied	—	—
B3	0.5	D-BU	6843	Auxiliary Device Relay 2 Control	I	—
B4	2.5	RD/BK	102	Battery Positive Voltage 1	I	—
B5	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
B6 - B7	—	—	—	Not Occupied	—	—
B8	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
B9	—	—	—	Not Occupied	—	—
B10	0.5	L-BU	6842	Auxiliary Device Relay 1 Control	I	—

X50B Fuse Block - Underhood Auxiliary (cont'd)

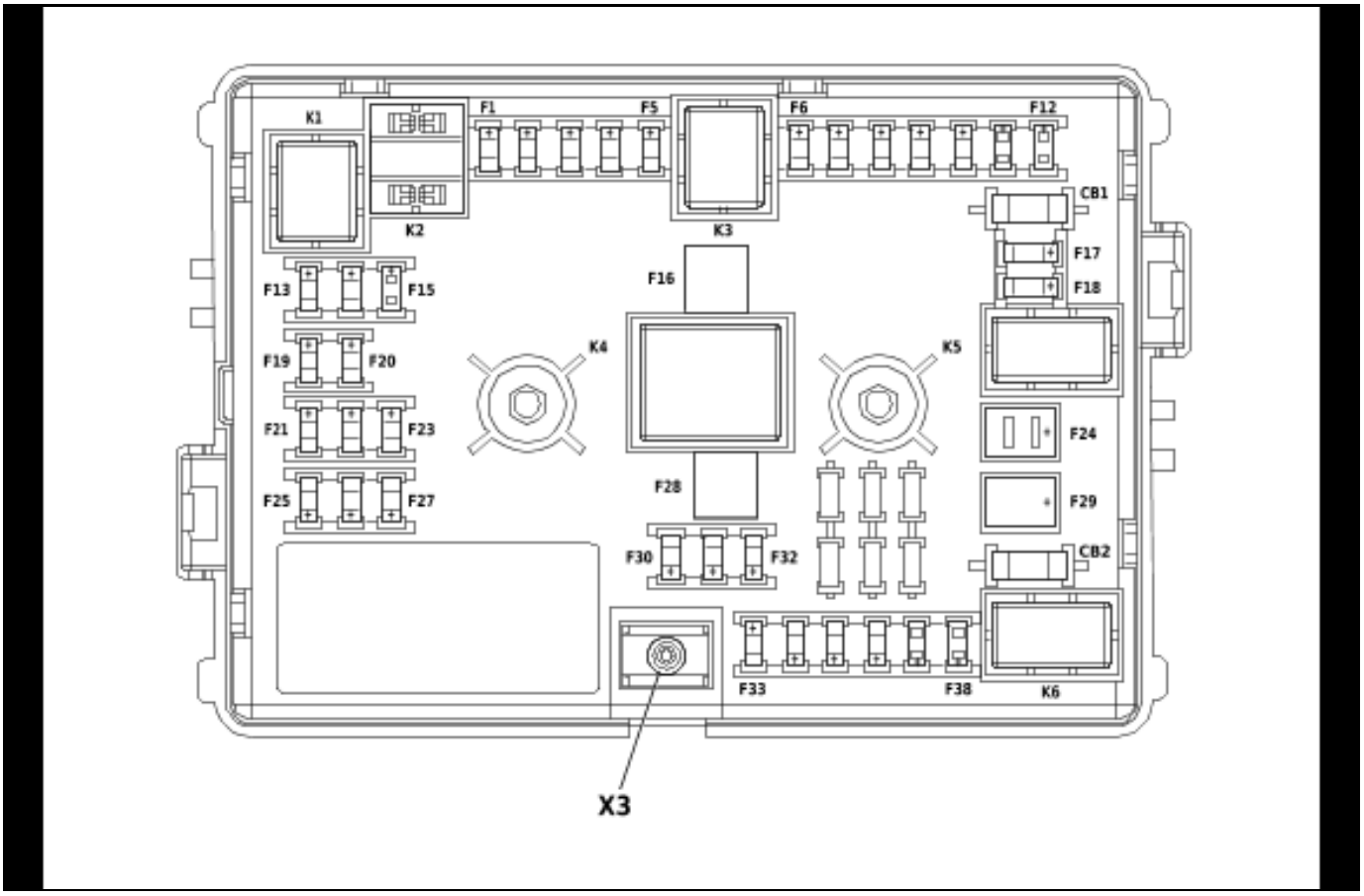
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
C1	0.5	BK	1850	Ground 18	I	—
C2	—	—	—	Not Occupied	—	—
C3	2.5	L-GN	6840	Auxiliary Device 2 Switched Voltage	I	—
C4 - C5	—	—	—	Not Occupied	—	—
C6	2.5	RD/BK	102	Battery Positive Voltage 1	I	—
C7	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
C8	0.5	BK	1551	Ground 15	I	—
C9	—	—	—	Not Occupied	—	—
C10	2.5	L-GN	6839	Auxiliary Device 1 Switched Voltage	I	—
D1 - D10	—	—	—	Not Occupied	—	—

X52A Fuse Block - Passenger Compartment Label



4822912

X52A Fuse Block - Passenger Compartment Top View



3988743

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Mini Fuses				
F1	EMPTY	F1PA	15A	• Not Used
F2	STR/WHL/SNSR	F2PA	2A	• S70L Steering Wheel Controls Switch - Left (K34 or W1Y) • S70R Steering Wheel Controls Switch - Right (W1Y)
F3	AUX PRK LAMP(S) (CUTAWAY)	F3PA	15A	• X405 (Cutaway)
F4	FRT PRK LAMP(S)	F4PA	10A	• E2LF Side Marker Lamp - Left Front • E2RF Side Marker Lamp - Right Front • E4N Park/Turn Signal Lamp - Left • E4P Park/Turn Signal Lamp - Right
F5	TRLR PRK LAMP(S)	F5PA	15A	• X88 Trailer Connector (UY7)
F6	UPFTR PRK LAMP(S)	F6PA	10A	• Not Used
F7	RT REAR PRK LAMP	F7PA	10A	• E5T Tail/Stop and Turn Signal Lamp - Right (Cargo or Passenger)
F8	LT REAR PARK LAMP	F8PA	10A	• E5S Tail/Stop and Turn Signal Lamp - Left (Cargo or Passenger) • E7 License Plate Lamp (Cargo or Passenger)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F9	OSRVM SW	F9PA	5A	• B174W Frontview Camera - Windshield • S52 Outside Rearview Mirror Switch (DEB or DE5)
F10	AIRBAG/AOS	F10PA	10A	• K36 Inflatable Restraint Sensing and Diagnostic Module
F11	ONSTAR	F11PA	10A	• K73 Telematics Communication Interface Control Module (UE1)
F12	FRONT CAM MODULE	F12PA	15A	• Not Used
F13	HVAC2	F13PA	10A	• K33A HVAC Control Module - Auxiliary • KR32B Blower Motor High Speed Relay - Auxiliary (C69/C36/ENC) • KR32C Blower Motor Low Speed Relay - Auxiliary (C69/C36/ENC) • KR32D Blower Motor Medium Speed Relay - Auxiliary (C69/C36/ENC) • KR81 Auxiliary Battery Relay 1 (TP3) • M6 Air Temperature Door Actuator • M6B Air Temperature Door Actuator - Auxiliary (C69/C36/ENC) • M37B Mode Door Actuator - Auxiliary (C69/C36/ENC) • S34 HVAC Controls Switch Assembly (C49/DE5/C60) • S34F HVAC Controls Switch Assembly - Auxiliary Front • S34R HVAC Controls Switch Assembly - Auxiliary Rear (Rear HVAC Controls)
F14	HVAC1	F14PA	20A	• S34 HVAC Controls Switch Assembly • X81 Accessory Power Receptacle - 110V AC (KI4)
F15	REF LED DISPLAY	F15PA	10A	• P43 Collision Alert Indicators
F17	OSRVM HTR	F17PA	20A	• A9A Outside Rearview Mirror - Driver (DEB or DE5) • A9B Outside Rearview Mirror - Passenger (DEB or DE5)
F18	REAR DEFOG	F18PA	30A	• E18L Rear Defogger Grid - Left (C49) • E18R Rear Defogger Grid - Right (C49)
F19	CMPS	F19PA	10A	• B176 Multi-axis Acceleration Sensor Module • K18 Compass Module (U80)
F20	RDO/CHIME	F20PA	15A	• A11 Radio (Without UL5) • A12 Digital Radio Receiver Control Module (U2K or UBS)
F21	RFA/TPM	F21PA	10A	• K77 Remote Control Door Lock Receiver (ATG or UJM)
F22	IGN SW (DLIS)/PK3	F22PA	2A	• K64 Content Theft Deterrent Control Module • S39 Ignition Switch
F23	I/P CLUSTER	F23PA	10A	• P16 Instrument Cluster (Without 8S8)
F25	HVAC CNTRL	F25PA	10A	• S34 HVAC Controls Switch Assembly (C49 or DE5)
F26	AUX/TRLR BCK/UP	F26PA	10A	• P3 Backup Alarm (8S3) • X88 Trailer Connector • X405 (Cutaway)
F27	TAIL LAMP(S) BCK/UP	F27PA	10A	• E5A Backup Lamp - Left (Cargo or Passenger) • E5B Backup Lamp - Right (Cargo or Passenger)

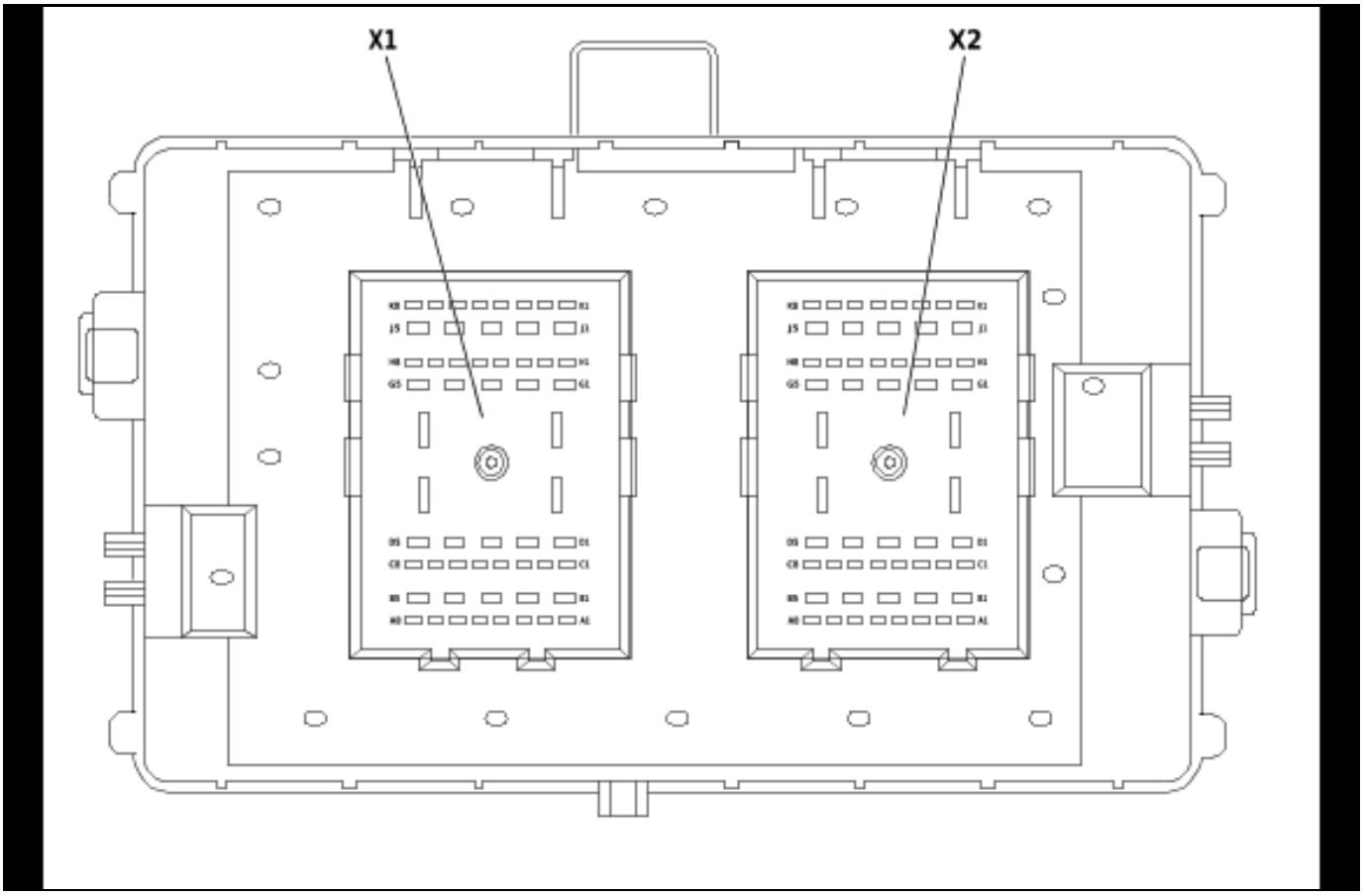
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F30	UPFTR CTSY LAMP(S)	F30PA	15A	• E36AC Dome Lamp - Left Roof Rail (Cargo) • E36AD Dome Lamp - Right Roof Rail (Cargo) • E36AH Dome Lamp (Cargo) • E37F Dome/Reading Lamps - Front • E37M Dome/Reading Lamps - Middle (Passenger) • E37R Dome/Reading Lamps - Rear (Passenger) • K9 Body Control Module • X405
F31	FRT DR LCK	F31PA	15A	• A23D Door Latch Assembly - Driver (AU3) • A23P Door Latch Assembly - Passenger (AU3)
F32	REAR DR LCK	F32PA	15A	• M13 Door Latch Assembly - Rear Cargo (Passenger or Cargo with AU3) • M14RR Door Lock Actuator - Right Rear (E24 or YA2) • X87RB Sliding Door Jamb Contact Plate - Right Body (E24 or YA2)
F33	CARGO DR UNLCK	F33PA	15A	• M13 Door Latch Assembly - Rear Cargo (Cargo or Passenger with AU3)
F34	FRT PASS DR UNLCK	F34PA	15A	• A23P Door Latch Assembly - Passenger (AU3)
F35	REAR PASS DR UNLCK	F35PA	15A	• KR90A Cargo Door Unlock Relay (AU3) • M14RR Door Lock Actuator - Right Rear (AU3) • X87RB Sliding Door Jamb Contact Plate - Right Body (AU3)
F36	DVR DR UNLCK	F36PA	15A	• A23D Door Latch Assembly - Driver (AU3)
F37	EMPTY	F37PA	15A	• Not Used
F38	EMPTY	F38PA	15A	• Not Used
J-Case Fuses				
F16	UPFITTER AUX1	F16PA	50A	• W12 Blunt Cut - Emergency Vehicle Provision (YF1) • X289 (PRP)
F24	EMPTY	F24PA	30A	• Not Used
F28	UPFITTER AUX2	F28PA	50A	• W12 Blunt Cut - Emergency Vehicle Provision (YF1)
F29	REAR BLOWER	F29PA	30A	• KR32B Blower Motor High Speed Relay - Auxiliary (C36/C69/ENC) • KR32C Blower Motor Low Speed Relay - Auxiliary (C36/C69/ENC) • KR32D Blower Motor Medium Speed Relay - Auxiliary (C36/C69/ENC)
Circuit Breakers				
CB1	PWR SEATS	CB1PA	25A	• S64D Seat Adjuster Switch - Driver (AG1) • S64P Seat Adjuster Switch - Passenger (AG2)
CB2	PWR WINDOW(S)	CB2PA	25A	• S79D Window Switch - Driver (A31) • S79P Window Switch - Passenger (A31)
Relays				
K1	RUN	KR74 Ignition Run Relay	—	• F13PA • F14PA • F15PA • F19PA • KR77 Ignition Power Provision Relay
K2	EMPTY	KR150 Relay - Spare	—	• Not Used

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
K3	PRK LAMP(S)	KR53 Park Lamps Relay	—	• F3PA • F4PA • F5PA • F6PA • F7PA • F8PA
K4	UPFTR AUX2	KR77 Ignition Power Provision Relay	—	• F28PA
K5	REAR DEFOG	KR5 Rear Defogger Relay	—	• F17PA • F18PA
K6	RAP	KR76 Retained Accessory Power Relay	—	• CB2PA • F37PA • F38PA
Important: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
K7	BCK/UP	KR40 Backup Lamp Relay	—	• F26PA • F27PA
K8	UPFTR CTSY LAMP(S)	KR78 Courtesy Lamps Provision Relay	—	• F30PA
K9A	FTR REAR PASS DR UNLCK	KR90P Passenger/ Cargo Door Unlock Relay	—	• F34PA • F35PA
K9B	DRVR DR UNLCK	KR92D Driver Door Unlatch Relay	—	• F36PA
K10A	FTR REAR DR LCK	KR97 Door Lock Relay	—	• F31PA • F32PA
K10B	CARGO DR UNLCK	KR90A Cargo Door Unlock Relay	—	• F33PA

X52A Fuse Block - Passenger Compartment Bottom View



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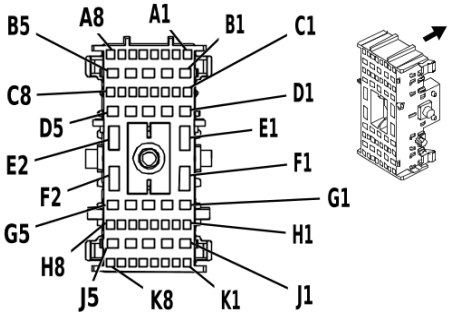
X52A Fuse Block - Passenger Compartment X1



2083844

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15477823
Service Connector: 13574911
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575465	J-35616-44 (YE)	J-38125-558
II	13575735	J-35616-14 (GN)	J-38125-215A
III	13575753	J-35616-4A (PU)	J-38125-215A

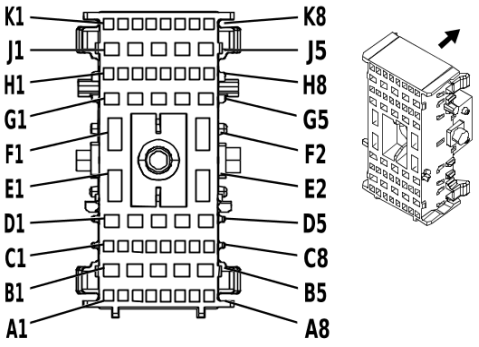
X52A Fuse Block - Passenger Compartment X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A3	—	—	—	Not Occupied	—	—
A4	0.5	YE	6817	LED Backlight Dimming Control 1	II	—
A5	0.35	D-BU	45	Park Lamp Relay Control	II	—
A6	0.35	BN	6136	Control	II	—
A7 - A8	—	—	—	Not Occupied	—	—
B1	0.8	RD/WH	3240	Secondary Fused Battery Positive Voltage 32	III	—
B2	1	BN	2109	Trailer Park Lamp Control	III	—
B3	0.35	BN	341	Run Ignition 3 Voltage 3	III	—
B4	0.8	BN	2309	Front Park Lamp Control	III	—
B5	1	BN	2109	Trailer Park Lamp Control	III	—
C1	1	YE	618	Left Rear Turn Signal Lamp Control	II	—
C2	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	II	—
C3	1	D-GN	619	Right Rear Turn Signal Lamp Control	II	—
C4	0.35	WH	193	Rear Defogger Relay Control	II	—
C5	0.35	BN	341	Run Ignition 3 Voltage 3	II	—
C6	—	—	—	Not Occupied	—	—
C7	0.35	OG	300	Run Ignition 3 Voltage	II	—
C8 - D3	—	—	—	Not Occupied	—	—
D4	0.5	VT/BK	1639	Run/Crank Ignition 1 Voltage 16	III	—
D5	0.5 1	D-BU BN	6807 141	DC/AC Inverter Control Run Ignition 3 Voltage 1	III III	— —
E1	—	—	—	Not Occupied	—	—
E2	0.8	BK	350	Ground 3	I	—
F1 - G2	—	—	—	Not Occupied	—	—
G3	0.5 0.8	GY D-BU/WH	5861 1315	Passenger Side Object Detection LED Signal 1 Right Front Turn Signal Lamp Control	III III	— —
G4	1	RD/WH	340	Secondary Fused Battery Positive Voltage 3	III	—
G5	—	—	—	Not Occupied	—	—
H1	0.5 0.8	GY/YE L-BU/WH	5853 1314	Driver Side Side Object Detection LED Signal 1 Left Front Turn Signal Lamp Control	II II	— —
H2	0.8 1	D-BU/WH D-BU/WH	149 149	Courtesy Lamp Control Courtesy Lamp Control	II II	— —
H3	0.35	BK/WH	351	Ground 3	II	—
H4	0.35	YE	43	Accessory Voltage 0	II	—
H5	0.8	RD/WH	4440	Secondary Fused Battery Positive Voltage 44	II	—
H6	0.35	RD/WH	2840	Secondary Fused Battery Positive Voltage 28	II	—
H7	0.35	RD/WH	540	Secondary Fused Battery Positive Voltage 5	II	—
H8	0.5	RD/WH	5340	Secondary Fused Battery Positive Voltage 53	II	—
J1 - J4	—	—	—	Not Occupied	—	—

X52A Fuse Block - Passenger Compartment X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
J5	1	L-GN	1624	Trailer Backup Lamp Control	III	—
K1	—	—	—	Not Occupied	—	—
K2	0.5	YE	356	Driver Door Lock Relay Unlock Control	II	—
K3	0.5	L-BU	244	Passenger Door Lock Switch Lock Control	II	—
K4	0.5	L-BU	244	Passenger Door Lock Switch Lock Control	II	—
K5	0.5	YE	356	Driver Door Lock Relay Unlock Control	II	—
K6 - K7	—	—	—	Not Occupied	—	—
K8	0.35	D-BU	38	Backup Lamp Relay Control	II	—

X52A Fuse Block - Passenger Compartment X2



1581655

Connector Part Information

Harness Type: Body
OEM Connector: 15477822
Service Connector: 19115189
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	13575756	J-35616-4A (PU)	J-38125-215A
IV	19367554	J-35616-44 (YE)	J-38125-558

X52A Fuse Block - Passenger Compartment X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A2	—	—	—	Not Occupied	—	—
A3	0.5	RD/WH	3440	Secondary Fused Battery Positive Voltage 34	I	—
A4	0.5	BN	2509	Left Rear Park Lamp Control	I	—
A5	0.5	BN	2609	Right Rear Park Lamp Control	I	—

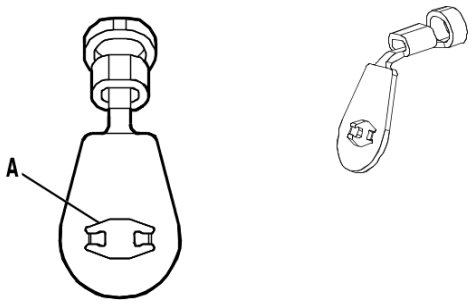
X52A Fuse Block - Passenger Compartment X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A6	0.5	RD/VT	102	Battery Positive Voltage 1	I	—
	0.5	RD/L-GN	3140	Secondary Fused Battery Positive Voltage 31	I	—
	0.5	RD/WH	4340	Secondary Fused Battery Positive Voltage 43	I	—
A7 - A8	—	—	—	Not Occupied	—	—
B1	3	RD/WH	3540	Secondary Fused Battery Positive Voltage 35	III	—
B2	3	RD/WH	3540	Secondary Fused Battery Positive Voltage 35	III	—
B3	1	RD/WH	3240	Secondary Fused Battery Positive Voltage 32	II	—
B4	0.5	BN	2209	Rear Park Lamp Control	II	—
B5 - C1	—	—	—	Not Occupied	—	—
C2	1	RD/WH	3240	Secondary Fused Battery Positive Voltage 32	I	—
C3	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
C4	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
C5	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
C6	1	D-GN	619	Right Rear Turn Signal Lamp Control	I	—
C7	1	YE	618	Left Rear Turn Signal Lamp Control	I	—
C8	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
D1	5	PU	293	Rear Defogger Grid Control	III	—
D2	5	PU	293	Rear Defogger Grid Control	III	—
D3	0.8	OG	2267	Outside Rearview Mirror Heater Control	II	—
D4	0.8	OG	2267	Outside Rearview Mirror Heater Control	II	—
D5	1	RD/WH	440	Secondary Fused Battery Positive Voltage 4	II	—
E1	—	—	—	Not Occupied	—	—
E2	5	RD/BK	1042	Primary Fused Battery Positive Voltage 10	IV	—
F1	5	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	IV	—
F2	5	BN	541	Run Ignition 3 Voltage 5	IV	—
G1	3	D-GN	1001	Retained Accessory Power Control 2	III	—
G2	3	D-GN	1001	Retained Accessory Power Control 2	III	—
G3	—	—	—	Not Occupied	—	—
G4	1	GY	295	Door Lock Actuator Lock Control	II	—
G5	1	GY	295	Door Lock Actuator Lock Control	II	—
H1	—	—	—	Not Occupied	—	—
H2	0.5	BK/BN	6045	Steering Angle Sensor Low Reference	I	—
H3	0.35	BK/WH	351	Ground 3	I	—
H4	—	—	—	Not Occupied	—	—
H5	0.5	D-BU/WH	1315	Right Front Turn Signal Lamp Control	I	—
H6	0.5	L-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
H7	0.5	D-BU/WH	149	Courtesy Lamp Control	I	—
H8	0.5	D-BU/WH	149	Courtesy Lamp Control	I	—
	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
	1	D-BU/WH	149	Courtesy Lamp Control	I	—
J1	0.8	TN	694	Driver Door Lock Actuator Unlock Control	II	—
J2	1	TN	294	Door Lock Actuator Unlock Control	II	—
J3	0.8	TN	294	Door Lock Actuator Unlock Control	II	—
J4	0.8	TN	294	Door Lock Actuator Unlock Control	II	—
J5	0.8	GY	295	Door Lock Actuator Lock Control	II	—

X52A Fuse Block - Passenger Compartment X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
K1 - K2	—	—	—	Not Occupied	—	—
K3	1	TN/BK	1095	Right Rear Door Lock Actuator Unlock Control	I	—
K4 - K6	—	—	—	Not Occupied	—	—
K7	1	TN	294	Door Lock Actuator Unlock Control	I	—
K8	1	L-GN	24	Backup Lamp Control	I	—

X52A Fuse Block - Passenger Compartment X3



4831037

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12160241
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

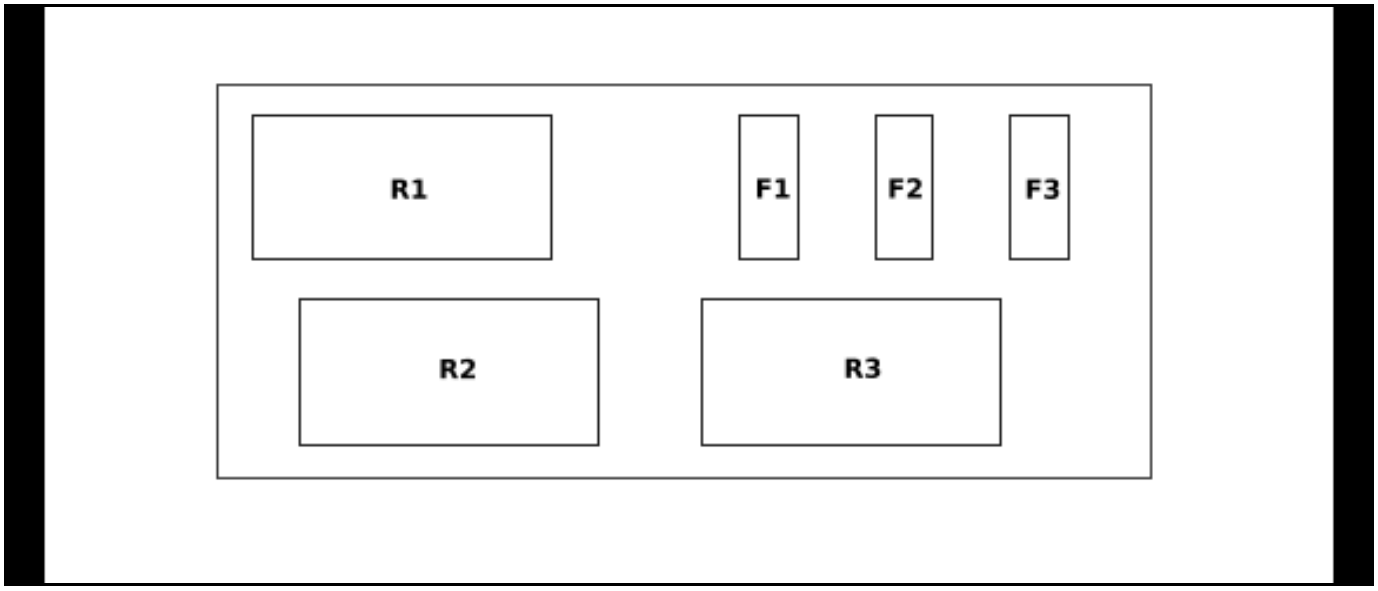
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

X52A Fuse Block - Passenger Compartment X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	842	Primary Fused Battery Positive Voltage 8	I	—

X53A Fuse Block - Rear Body Top View (PRP)

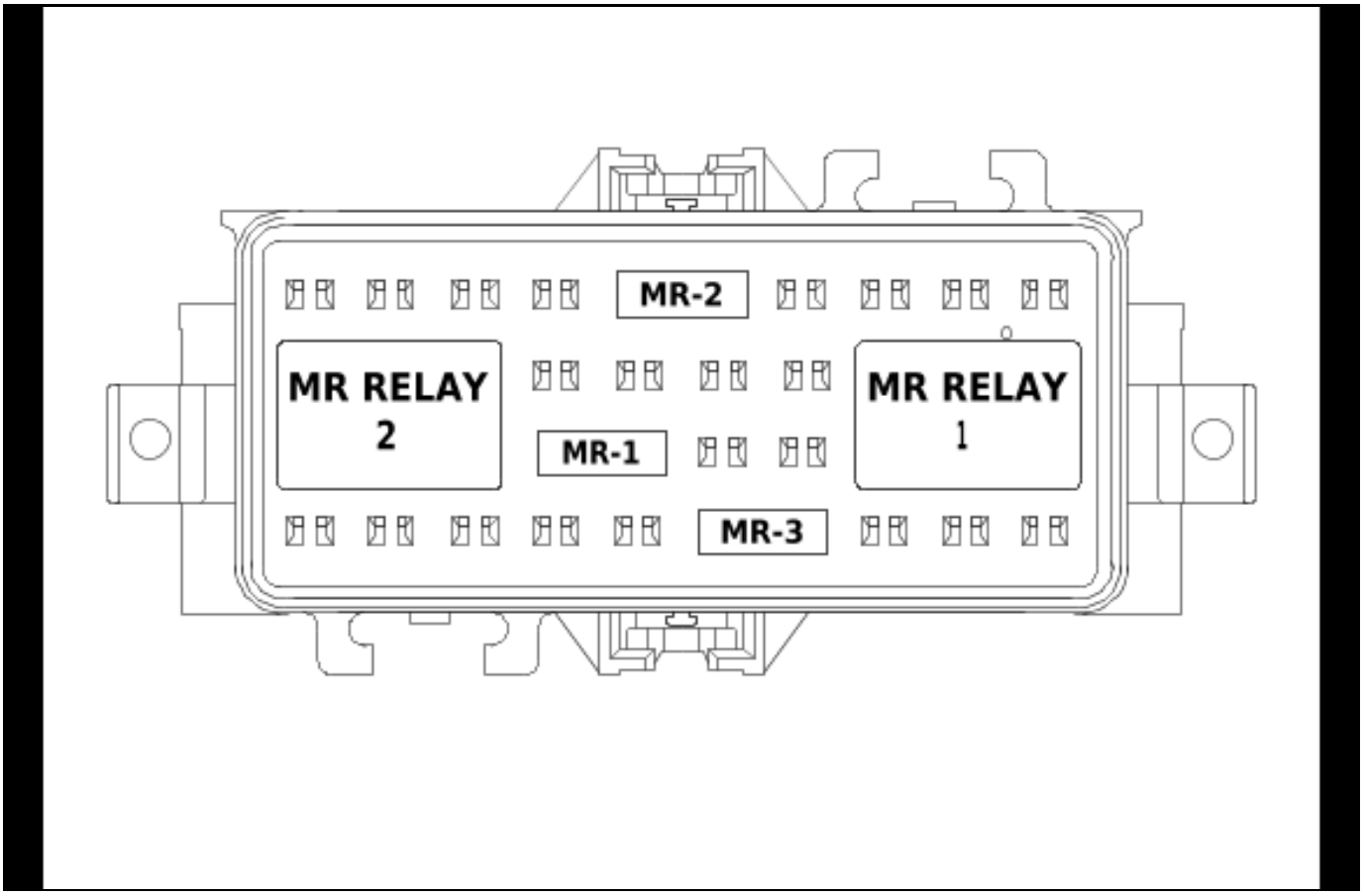


3988749

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	DOME FLUORESCENT WORK LAMPS	F1RA	10A	• E21A Fluorescent Work Lamp - Right Access Panel • E21F Fluorescent Work Lamp - Front Cargo • E21LF Fluorescent Work Lamp - Left Front Access Panel • E21R Fluorescent Work Lamp - Rear Cargo • E21LR Fluorescent Work Lamp - Left Rear Access Panel
F2	PANEL ACTUATOR	F2RA	15A	• KR89LF Left Front Access Panel Relay • KR89LR Left Rear Access Panel Relay • KR89RR Right Rear Access Panel Relay
F3	SPARE	F3RA	—	• Not Used
Relays				
R1	LEFT REAR ACCESS PANEL RELAY	KR89LR Left Rear Access Panel Relay	—	• M2C Access Panel Unlatch Actuator - Left Rear Side Front • M2D Access Panel Unlatch Actuator - Left Rear Side Rear
R2	LEFT FRONT ACCESS PANEL RELAY	KR89LF Left Front Access Panel Relay	—	• M2A Access Panel Unlatch Actuator - Left Front Side Front • M2B Access Panel Unlatch Actuator - Left Front Side Rear
R3	RIGHT REAR ACCESS PANEL RELAY	KR89RR Right Rear Access Panel Relay	—	• M2E Access Panel Unlatch Actuator - Right Side Front • M2F Access Panel Unlatch Actuator - Right Side Rear

X54D Fuse Block - Fuel Heater Top View

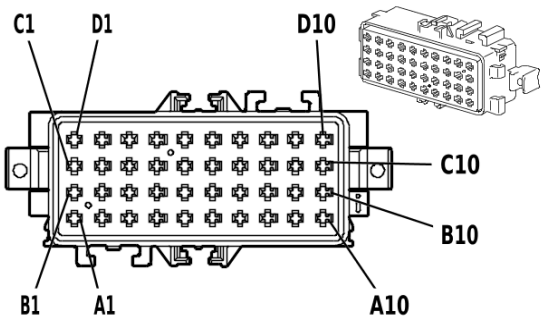


4845613

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	MR-1	F1BA	30A	• E11A Fuel Heater/Water in Fuel Sensor
F2	MR-2	F2BA	30A	• K115 Reductant Control Module
F3	MR-3	F3BA	10A	• K115 Reductant Control Module
Relays				
R1	MR RELAY 1	KR22 Fuel Heater Relay	—	• F1BA
R2	MR RELAY 2	KR121A Reductant Control Module Relay 1	—	• F2BA • F3BA

X54D Fuse Block - Fuel Heater



2002692

Connector Part Information

Harness Type: Engine
OEM Connector: 13607200
Service Connector: Service by Component Assembly - See Part Catalog
Description: 40-Way F 2.8 MCP Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300440	J-35616-4A (PU)	J-38125-557

X54D Fuse Block - Fuel Heater

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A5	—	—	—	Not Occupied	—	—
A6	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	I	—
A7	2	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
A8 - A10	—	—	—	Not Occupied	—	—
B1	2.5	RD/YE	2	Battery Positive Voltage	I	—
B2	—	—	—	Not Occupied	—	—
B3	0.5	D-BU	3017	Fuel Heater Relay 1 Control	I	—
B4	2.5	VT/L-GN	355	—	I	—
B5	2.5	RD/WH	6440	Secondary Fused Battery Positive Voltage 64	I	—
B6 - B7	—	—	—	Not Occupied	—	—
B8	2.5	RD/YE	2	Battery Positive Voltage	I	—
B9	—	—	—	Not Occupied	—	—
B10	0.5	L-GN/BU	3889	Powertrain Sensor Bus Relay Control	I	—
C1	2.5	RD/YE	2	Battery Positive Voltage	I	—
C2	—	—	—	Not Occupied	—	—
C3	2.5	RD/WH	6440	Secondary Fused Battery Positive Voltage 64	I	—
C4 - C7	—	—	—	Not Occupied	—	—
C8	2.5	RD/YE	2	Battery Positive Voltage	I	—
C9	—	—	—	Not Occupied	—	—
C10	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
D1 - D4	—	—	—	Not Occupied	—	—
D5	2.5	D-BU	3921	—	I	—

X54D Fuse Block - Fuel Heater (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
D6	2.5	RD/WH	5440	Secondary Fused Battery Positive Voltage 54	I	—
D7 - D10	—	—	—	Not Occupied	—	—

X55AF Fuse Holder - Engine Control Module

—

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 35034412
Service Connector: Service by Harness - See Part Catalog
Description: Fuse Holder

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

X55AF Fuse Holder - Engine Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	8	RD	2	Battery Positive Voltage	I	—
2	8	RD	2	Battery Positive Voltage	I	—

X55AS Fuse Holder - Rear Body Fuse Block

—

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 35034411
Service Connector: Service by Harness - See Part Catalog
Description: —

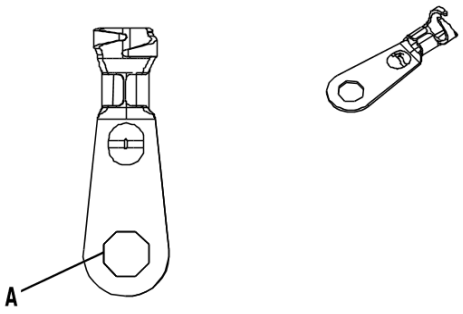
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

X55AS Fuse Holder - Rear Body Fuse Block

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	8	RD	2	Battery Positive Voltage	I	—
2	8	RD	2	Battery Positive Voltage	I	—

X60A Junction Block - Underhood (LWN (Auxiliary Battery))



3214043

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12146361
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

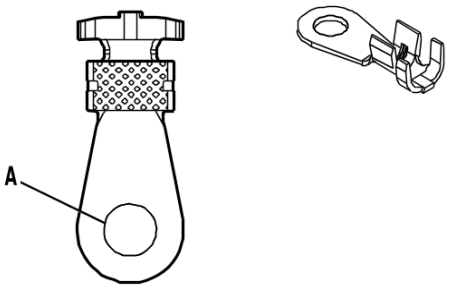
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

X60A Junction Block - Underhood (LWN (Auxiliary Battery))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

X60A Junction Block - Underhood (LWN (Primary Battery))



4937555

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12103014
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

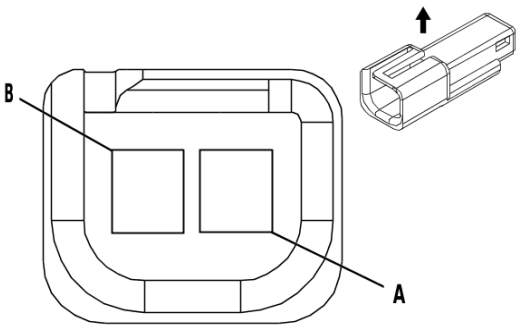
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

X60A Junction Block - Underhood (LWN (Primary Battery))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—
	8	RD	2	Battery Positive Voltage		—

Component Connector End Views

A3R Sunshade - Right



35441

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663

Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

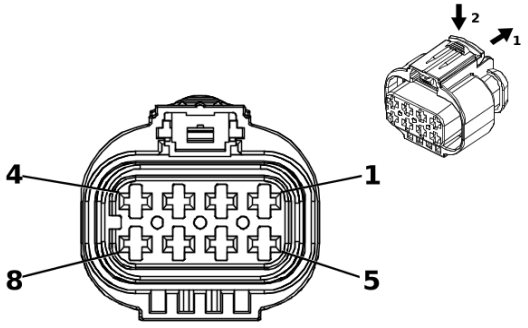
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required

A3R Sunshade - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	1732	Control Module 12V Reference 3	I	—
B	0.5	BK	1850	Ground 18	I	—

A7 Fuel Pump and Level Sensor Assembly (LWN)



3749581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180017
Service Connector: 19355165
Description: 8-Way F 2.8 Series, Sealed (BK)

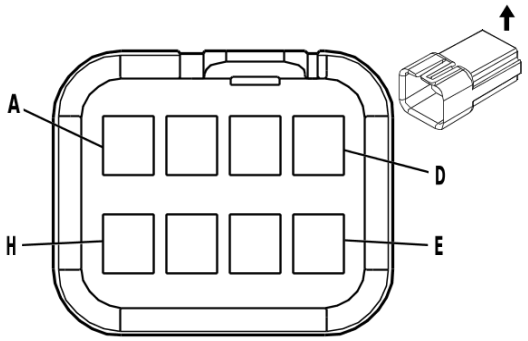
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

A7 Fuel Pump and Level Sensor Assembly (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	2.5	GY	120	Fuel Pump Control	I	—
4	2	BK	150	Ground 1	I	—
5	0.5	D-BU/VT	1589	Primary Fuel Level Sensor Signal 2	I	—
6	0.5	BK/L-GN	6281	Fuel Level Sensor Low Reference	I	—
7 - 8	—	—	—	Not Occupied	—	—

A9A Outside Rearview Mirror - Driver



62434

Connector Part Information

Harness Type: Driver Door
OEM Connector: 12065396
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series (NA)

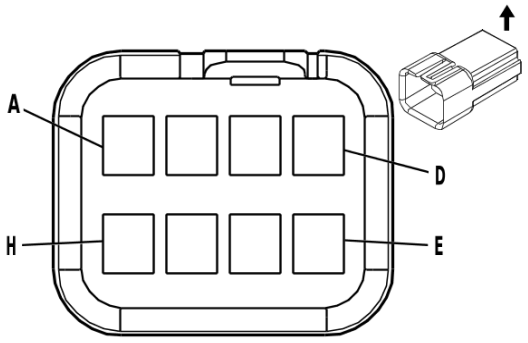
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required

A9A Outside Rearview Mirror - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	450	Ground 4	I	—
B	0.5	L-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
C	0.8	OG	2267	Outside Rearview Mirror Heater Control	I	—
D	0.5	BK	450	Ground 4	I	—
E	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—
F	0.35	L-GN	89	Left Outside Rearview Mirror Motor Down Control	I	—
G	0.35	WH	81	Left Outside Rearview Mirror Motor Right Control	I	—
H	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—

A9B Outside Rearview Mirror - Passenger



62434

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 12162427
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series (NA)

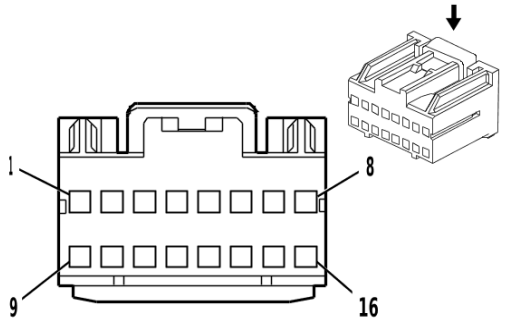
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required

A9B Outside Rearview Mirror - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	1850	Ground 18	I	—
B	0.5	D-BU/WH	1315	Right Front Turn Signal Lamp Control	I	—
C	0.8	OG	2267	Outside Rearview Mirror Heater Control	I	—
D	0.5	BK	1850	Ground 18	I	—
E	0.35	BN/WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—
F	0.35	PU/WH	889	Right Outside Rearview Mirror Motor Down Control	I	—
G	0.35	OG/WH	881	Right Outside Rearview Mirror Motor Right Control	I	—
H	0.35	BN/WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—

A10 Inside Rearview Mirror (-(UEU/UFL))



1711009

Connector Part Information

Harness Type: Headliner
OEM Connector: 15441350
Service Connector: 15306351
Description: 16-Way F 100A Micro-Pack Series (BK)

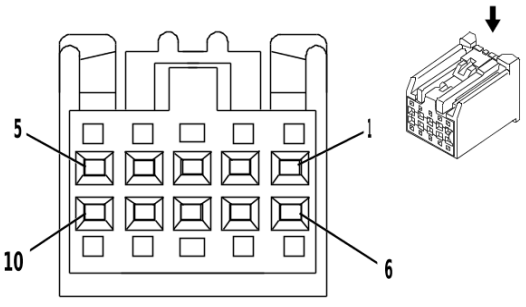
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575548	J-35616-16 (LT GN)	J-38125-559

A10 Inside Rearview Mirror (-(UEU/UFL))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 5	—	—	—	Not Occupied	—	—
6	0.5	BU	7641	Frontview Camera 2 Signal [+]	I	—
7	0.5	BU	7642	Frontview Camera 2 Signal [-]	I	—
8	0.5	BK/WH	351	Ground 3	I	—
9	0.5	L-GN	24	Backup Lamp Control	I	—
10 - 12	—	—	—	Not Occupied	—	—
13	0.5	PK	239	Run/Crank Ignition 1 Voltage 2	I	—
14 - 16	—	—	—	Not Occupied	—	—

A10 Inside Rearview Mirror (UEU/UFL)



2180211

Connector Part Information

Harness Type: Headliner
OEM Connector: 13815336
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series (BK)

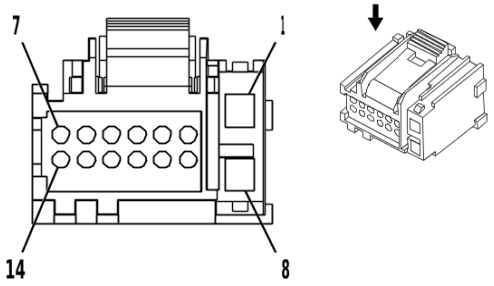
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (LT BU)	J-38125-215A

A10 Inside Rearview Mirror (UEU/UFL)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/WH	24	Backup Lamp Control	I	—
2	0.5	VT/WH	239	Run/Crank Ignition 1 Voltage 2	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	BK/WH	351	Ground 3	I	—
6	0.5	D-BU	7641	Frontview Camera 2 Signal [+]	I	—
7	0.5	WH	7642	Frontview Camera 2 Signal [-]	I	—
8 - 10	—	—	—	Not Occupied	—	—

A11 Radio X1



2684742

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13545675
Service Connector: 13580448
Description: 14-Way F 0.64 Micro-Pack, 150 GT Series (BK)

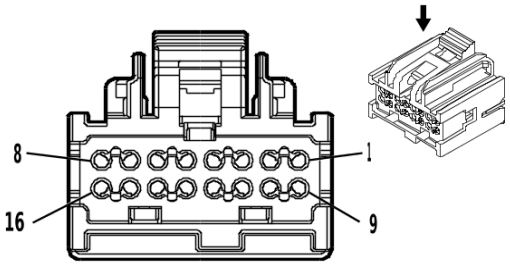
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13579976	J-35616-64B (LT BU)	J-38125-21
III	13582245	J-35616-64B (LT BU)	J-38125-21

A11 Radio X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	RD/WH	340	Secondary Fused Battery Positive Voltage 3	I	—
2	0.8	D-BU	1857	Left Front Midrange Speaker [+] Control	II	—
3	0.8	OG	1853	Right Front Midrange Speaker [+] Control	II	—
4	0.8	GY	655	Cellular Telephone Microphone Signal	II	—
5	0.8	D-GN	654	Cellular Telephone Microphone Low Reference	II	—
6	—	—	—	Not Occupied	—	—
7	0.35	YE	6817	LED Backlight Dimming Control 1	III	—
8	1	BK/WH	351	Ground 3	I	—
9	0.8	L-BU	1957	Left Front Midrange Speaker [-] Control	II	—
10	0.8	D-GN	1953	Right Front Midrange Speaker [-] Control	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.35	D-GN	5060	Low Speed GMLAN Serial Data	III	—
14	—	—	—	Not Occupied	—	—

A11 Radio X2



2127936

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13567860
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series, Sealed (PU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579976	J-35616-64B (LT BU)	J-38125-21
II	13582245	J-35616-64B (LT BU)	J-38125-21

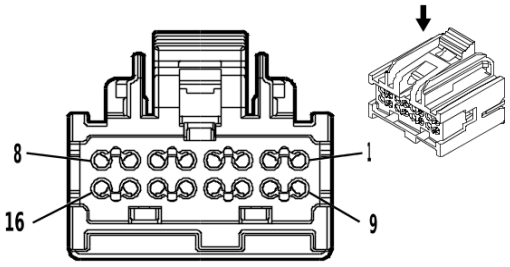
A11 Radio X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/WH	367	Secondary Radio Receiver Left Audio Signal	II	—
2	0.35	D-GN/WH	368	Secondary Radio Receiver Right Audio Signal 1	II	—
3 - 4	—	—	—	Not Occupied	—	—

A11 Radio X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5	0.8	TN	1859	Left Rear Midrange Speaker [+] Control	I	—
6	0.8	TN	1855	Right Rear Midrange Speaker [+] Control	I	—
7	0.8	D-BU	658	Cellular Telephone Voice Signal	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	TN/WH	372	Secondary Radio Receiver Audio [-] Control	II	—
10	0.35	GY	388	Secondary Radio Receiver Right Audio Signal 2	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.8	WH	1959	Left Rear Midrange Speaker [-] Control	I	—
14	0.8	OG	1955	Right Rear Midrange Speaker [-] Control	I	—
15	0.8	L-BU/BK	659	Cellular Telephone Voice Low Reference	I	—
16	—	—	—	Not Occupied	—	—

A12 Digital Radio Receiver Control Module X1



2127936

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13568238
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579976	J-35616-64B (LT BU)	J-38125-21
II	13582245	J-35616-64B (LT BU)	J-38125-21

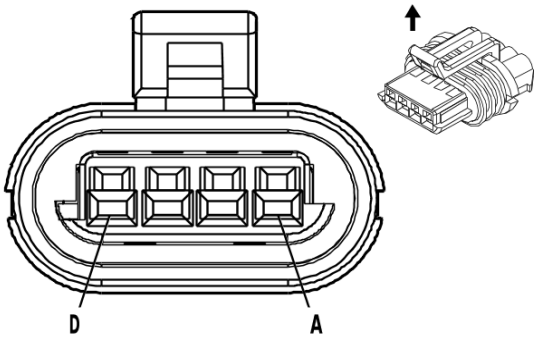
A12 Digital Radio Receiver Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	TN/WH	372	Secondary Radio Receiver Audio [-] Control	II	—
2	0.35	BN/WH	367	Secondary Radio Receiver Left Audio Signal	II	—
3	0.35	D-GN/WH	368	Secondary Radio Receiver Right Audio Signal 1	II	—
4	0.35	GY	388	Secondary Radio Receiver Right Audio Signal 2	II	—
5	0.5	D-GN	5060	Low Speed GMLAN Serial Data	I	—

A12 Digital Radio Receiver Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
6 - 8	—	—	—	Not Occupied	—	—
9	0.8	BK/WH	351	Ground 3	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	Bare	1573	Front Audio Low Reference	II	—
12 - 15	—	—	—	Not Occupied	—	—
16	0.8	RD/WH	340	Secondary Fused Battery Positive Voltage 3	I	—

A23D Door Latch Assembly - Driver X1



684948

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15354716
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

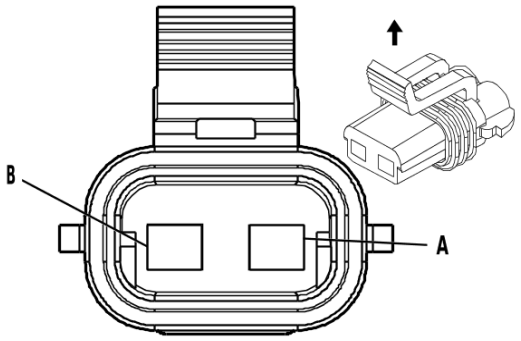
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

A23D Door Latch Assembly - Driver X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	TN	126	Left Front Door Open Switch Signal	I	—
B	0.35	GY/BK	745	Left Front Door Ajar Switch Signal	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	BK	450	Ground 4	I	—

A23D Door Latch Assembly - Driver X2



68721

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

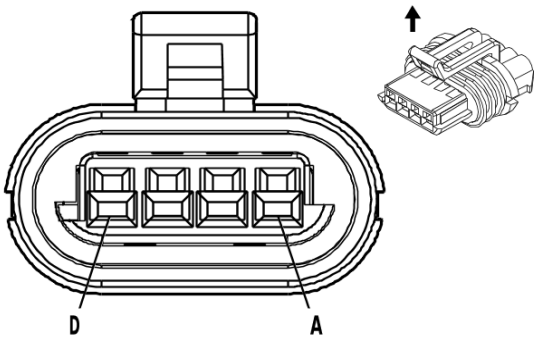
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

A23D Door Latch Assembly - Driver X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	694	Driver Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

A23P Door Latch Assembly - Passenger X1



684948

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15354716
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

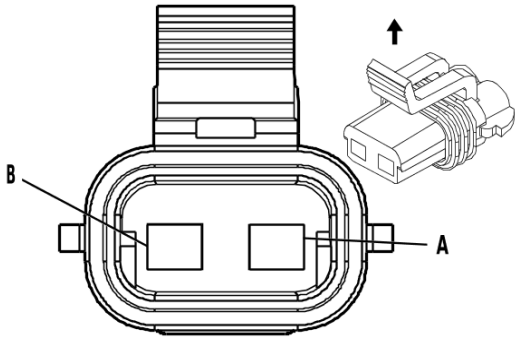
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

A23P Door Latch Assembly - Passenger X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground 18	I	—
B	—	—	—	Not Occupied	—	—
C	0.35	TN/WH	746	Right Front Door Ajar Switch Signal	I	—
D	0.35	L-GN	1177	Right Front Door Open Switch Signal	I	—

A23P Door Latch Assembly - Passenger X2



68721

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

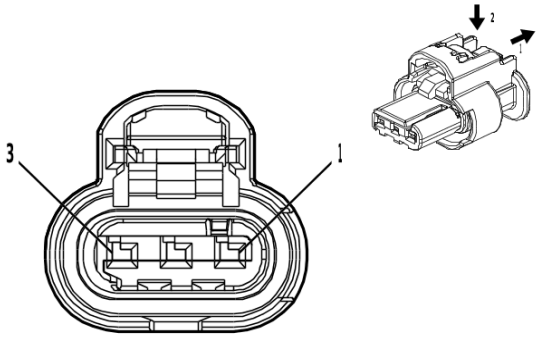
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

A23P Door Latch Assembly - Passenger X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

B1 A/C Refrigerant Pressure Sensor (-LWN)



4581126

Connector Part Information

Harness Type: Engine
OEM Connector: 33358800
Service Connector: 19366844
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

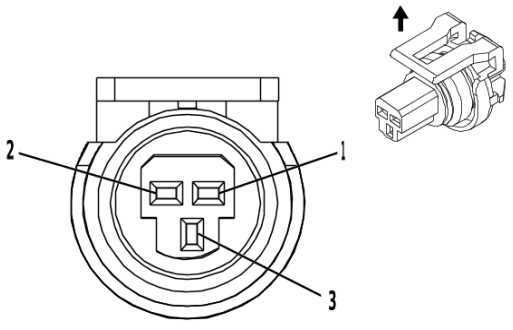
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B1 A/C Refrigerant Pressure Sensor (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
2	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	I	—
3	0.5	BK/GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—

B1 A/C Refrigerant Pressure Sensor (LWN)



2909191

Connector Part Information

Harness Type: Engine
OEM Connector: 13846842

Service Connector: 19368669
Description: 3-Way F 150 GT Series, Sealed (BK)

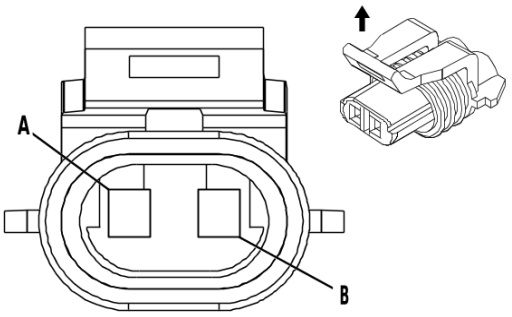
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B1 A/C Refrigerant Pressure Sensor (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	—
2	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	I	—
3	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	I	—

B1B A/C Low Side Pressure Switch



537107

Connector Part Information

Harness Type: Engine
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

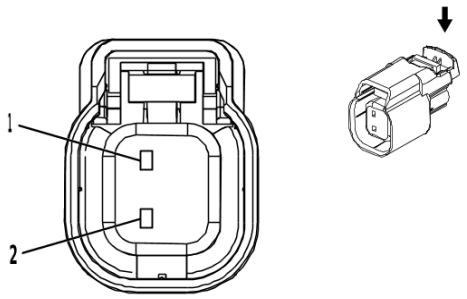
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B1B A/C Low Side Pressure Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN	66	A/C Request Signal	I	—
B	0.5	BN/WH	66	A/C Request Signal	I	—

B5LF Wheel Speed Sensor - Left Front



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

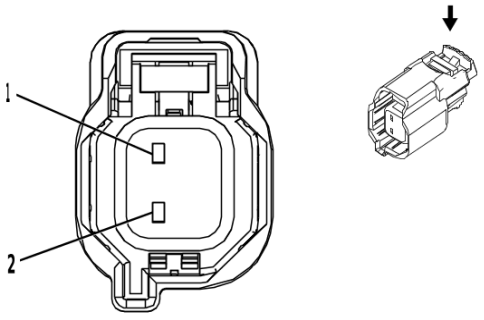
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5LF Wheel Speed Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	7064	Left Front Wheel Speed Sensor Control	I	—
2	0.5	GY	830	Left Front Wheel Speed Sensor Signal	I	—

B5LR Wheel Speed Sensor - Left Rear (-R04)



3651383

Connector Part Information

Harness Type: Chassis
OEM Connector: 15540141
Service Connector: 19366863
Description: 2-Way F 1.5 Series, Sealed (L-GY)

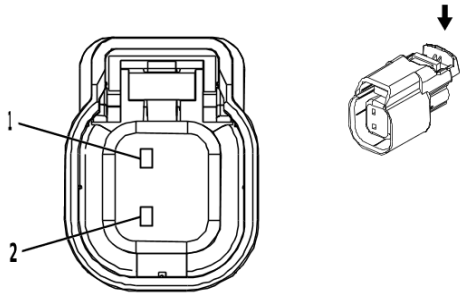
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5LR Wheel Speed Sensor - Left Rear (-R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BK	7127	Left Rear Wheel Speed Sensor Control	I	—
2	0.5	D-BU	884	Left Rear Wheel Speed Sensor Signal	I	—

B5LR Wheel Speed Sensor - Left Rear (R04)



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

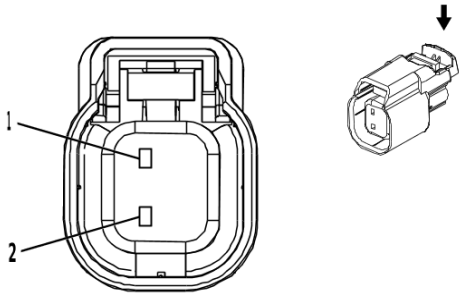
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5LR Wheel Speed Sensor - Left Rear (R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BK	7127	Left Rear Wheel Speed Sensor Control	I	—
2	0.5	D-BU	884	Left Rear Wheel Speed Sensor Signal	I	—

B5RF Wheel Speed Sensor - Right Front (-LWN)



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

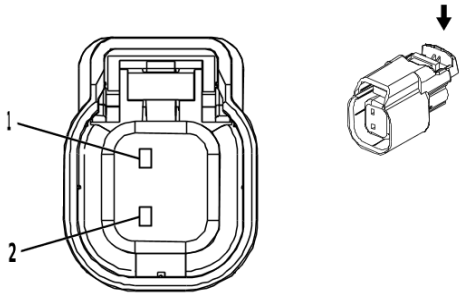
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5RF Wheel Speed Sensor - Right Front (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	7065	Right Front Wheel Speed Sensor Control	I	—
2	0.5	YE	872	Right Front Wheel Speed Sensor Signal	I	—

B5RF Wheel Speed Sensor - Right Front (LWN)



2792100

Connector Part Information

Harness Type: Engine
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

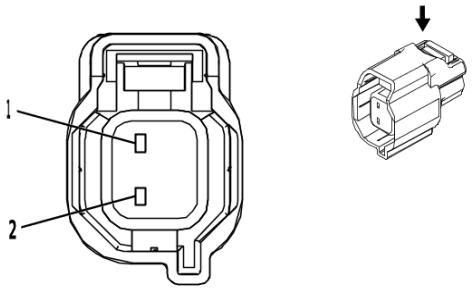
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5RF Wheel Speed Sensor - Right Front (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	7065	Right Front Wheel Speed Sensor Control	I	—
2	0.5	YE	872	Right Front Wheel Speed Sensor Signal	I	—

B5RR Wheel Speed Sensor - Right Rear (-R04)



2900396

Connector Part Information

Harness Type: Chassis
OEM Connector: 15503634
Service Connector: 19366856
Description: 2-Way F 1.5 Series (L-GY)

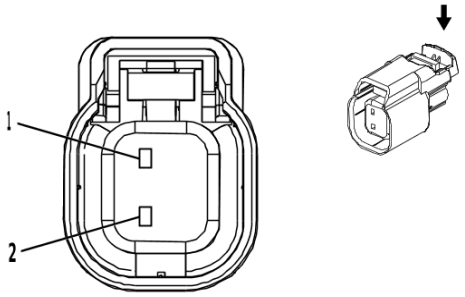
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5RR Wheel Speed Sensor - Right Rear (-R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/YE	7128	Right Rear Wheel Speed Sensor Control	I	—
2	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	I	—

B5RR Wheel Speed Sensor - Right Rear (R04)



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

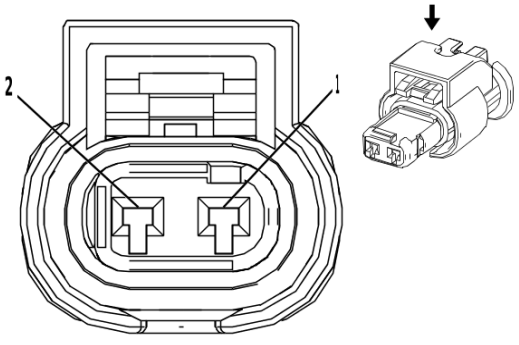
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B5RR Wheel Speed Sensor - Right Rear (R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/YE	7128	Right Rear Wheel Speed Sensor Control	I	—
2	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	I	—

B9 Ambient Air Temperature Sensor (-UFA)



2474752

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13927761
Service Connector: 19366858
Description: 2-Way F 1.2 MCP Series, Sealed (BK with BK Inner Connector)

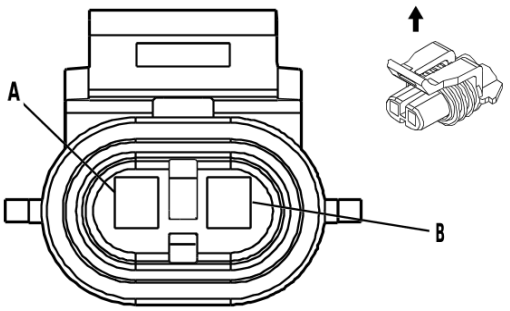
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B9 Ambient Air Temperature Sensor (-UFA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/BK	735	Ambient Air Temperature Sensor Signal 2	I	—
2	0.5	BK/YE	407	Sensor Low Reference	I	—

B9 Ambient Air Temperature Sensor (UFA)



684793

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12052642
Service Connector: 12101856
Description: 2-Way F 150 Metri-Pack Series, Sealed (L-GN)

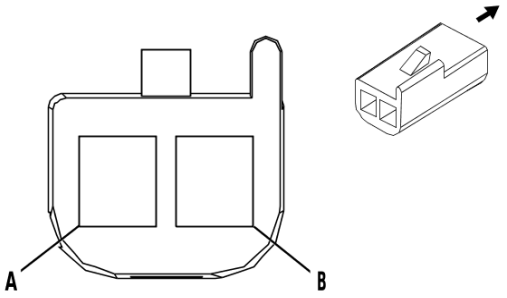
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B9 Ambient Air Temperature Sensor (UFA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU/GY	636	Ambient Air Temperature Sensor Signal	I	—
B	0.5	BK/BU	61	Ambient Air Temperature Sensor Low Reference	I	—

B10 Ambient Light Sensor



82383

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

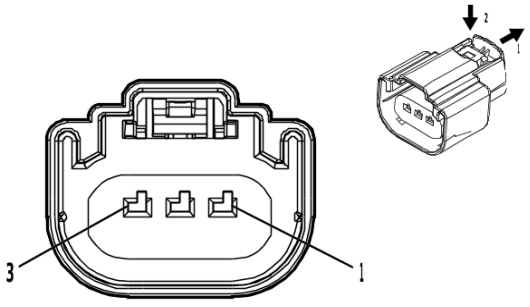
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B10 Ambient Light Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	WH	278	Ambient Light Sensor Signal	I	—
B	0.35	BK/WH	351	Ground 3	I	—

B18 Battery Current Sensor



4569745

Connector Part Information

Harness Type: Engine
OEM Connector: 33343869
Service Connector: 19179750
Description: 3-Way F 150 MX Series, Sealed (BK)

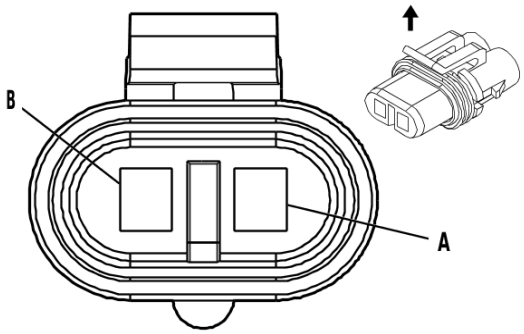
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B18 Battery Current Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/VT	5076	Current Sensor Voltage Reference	I	—
2	0.5	BK/VT	5077	Current Sensor Low Reference	I	—
3	0.5	WH/YE	5075	Current Sensor Signal	I	—

B19A Brake Booster Fluid Pressure Alarm Switch



646148

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 12020599
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

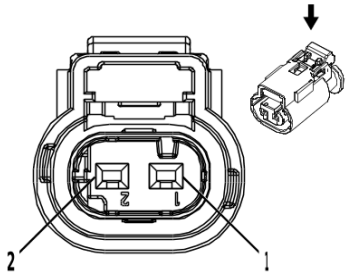
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

B19A Brake Booster Fluid Pressure Alarm Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	TN/WH	33	Brake Warning Indicator Control	I	—
B	0.5	L-BU/BK	1928	Brake Booster Fluid Flow Alarm Switch Signal	I	—

B20 Brake Fluid Level Switch



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

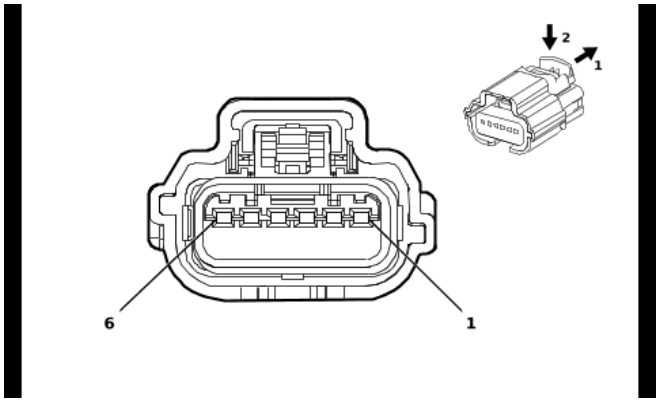
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B20 Brake Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK/WH	1551	Ground 15	I	—
2	0.75	GN/GY	333	Brake Fluid Level Switch Signal	I	—

B22 Brake Pedal Position Sensor



4773396

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35199160
Service Connector: 84683650
Description: 6-Way F 64 Series, Sealed (NA)

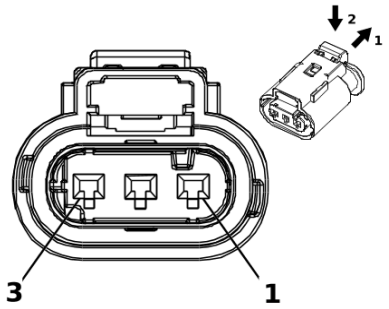
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B22 Brake Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	5382	Brake Position Sensor Low Reference	I	—
2	0.5	GY	5381	Brake Position Sensor 5V Reference	I	—
3	0.5	TN	5380	Brake Position Sensor Signal	I	—
4	0.5	YE	5361	Brake Apply Sensor Signal	I	—
5	0.5	BN	5360	Brake Apply Sensor Low Reference	I	—
6	0.5	WH	5359	Brake Apply Sensor Voltage Reference	I	—

B23 Camshaft Position Sensor



2717069

Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

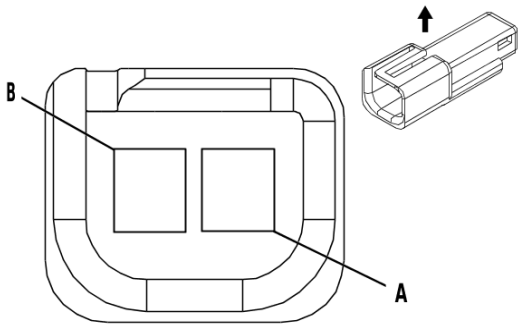
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B23 Camshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	I	—
2	0.5	BK/L-GN	5301	Intake Camshaft Position Sensor Low Reference 1	I	—
3	0.5	YE/VT	5275	Intake Camshaft Position Sensor 1	I	—

B24 Mobile Telephone Microphone



35441

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

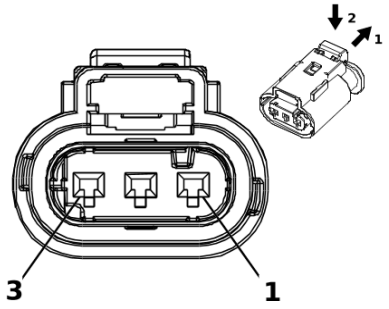
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required

B24 Mobile Telephone Microphone

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-GN	654	Cellular Telephone Microphone Low Reference	I	—
B	0.8	GY	655	Cellular Telephone Microphone Signal	I	—

B26 Crankshaft Position Sensor



2717069

Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

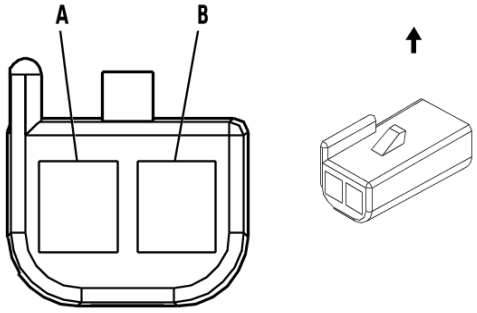
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B26 Crankshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	6270	Crankshaft Position Sensor Voltage	I	—
2	0.5	BK/VT	6272	Crankshaft Position Sensor Low Reference	I	—
3	0.5	L-GN	6271	Crankshaft Position Sensor Signal	I	—

B28F Door Ajar Switch - Right Sliding



35451

Connector Part Information

Harness Type: Body
OEM Connector: 12059251
Service Connector: 12101848
Description: 2-Way F 150 Metri-Pack Series (RD)

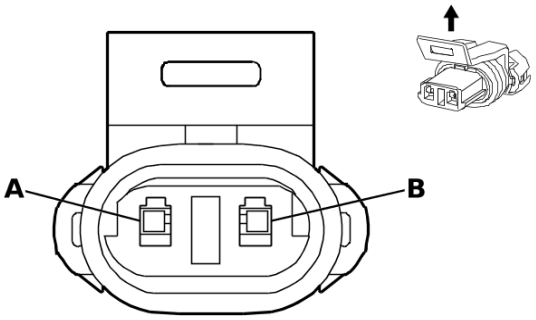
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B28F Door Ajar Switch - Right Sliding

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground 18	I	—
B	0.35	YE/BK	1181	Right Rear Door Open Switch Signal	I	—

B33 Engine Coolant Level Switch (LWN)



655783

Connector Part Information

Harness Type: Engine
OEM Connector: 15324243
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

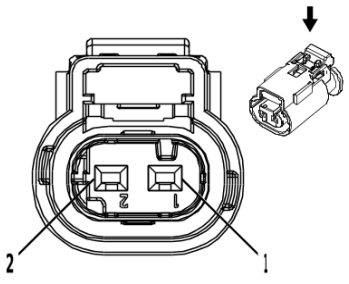
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B33 Engine Coolant Level Switch (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	L-GN/YE	1478	Coolant Level Switch Signal	I	—
B	0.5	BK/WH	351	Ground 3	I	—

B34 Engine Coolant Temperature Sensor (LV1)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

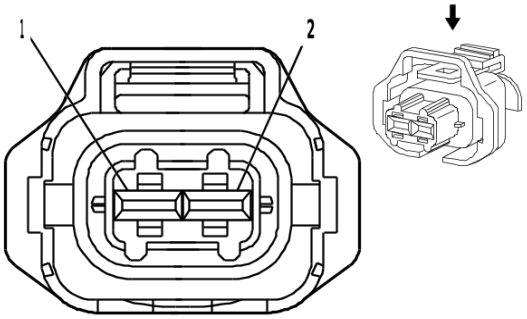
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B34 Engine Coolant Temperature Sensor (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	I	—
2	0.5	BK/YE	548	Engine Control Sensors Low Reference 1	I	—

B34 Engine Coolant Temperature Sensor (LWN)



1403270

Connector Part Information

Harness Type: Engine
OEM Connector: 15363766
Service Connector: 88953309
Description: 2-Way F 2.8 Junior Power Timer Series, Sealed (BK)

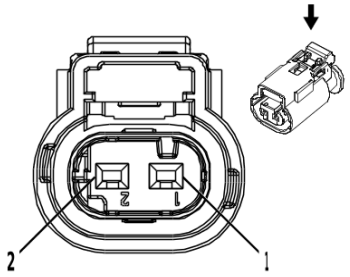
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

B34 Engine Coolant Temperature Sensor (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	I	—
2	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—

B35 Engine Oil Level Switch (-LV1)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

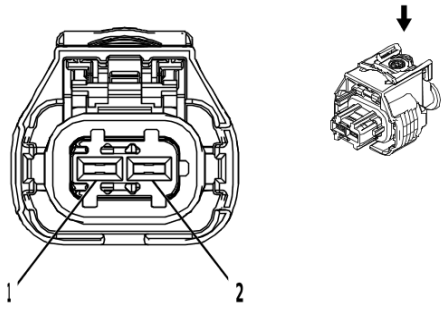
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B35 Engine Oil Level Switch (-LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	—
2	0.75	BK/WH	1551	Ground 15	I	—

B35 Engine Oil Level Switch (LV1)



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

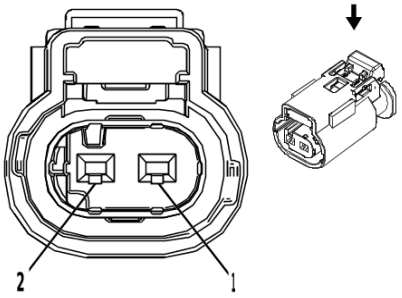
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

B35 Engine Oil Level Switch (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	—
2	0.75	BK/WH	1551	Ground 15	I	—

B36 Engine Oil Temperature Sensor



2830969

Connector Part Information

Harness Type: Engine
OEM Connector: 13840071
Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

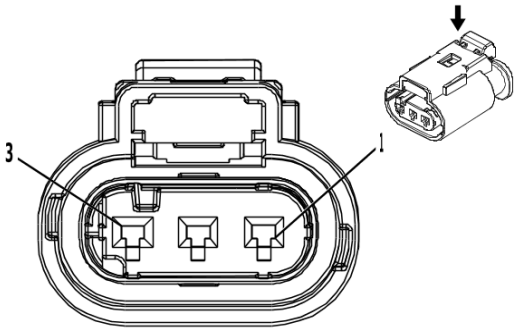
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B36 Engine Oil Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/BU	357	Oil Temperature Sensor Signal	I	—
2	0.5	BK/YE	548	Engine Control Sensors Low Reference 1	I	—

B37B Engine Oil Pressure Sensor



3240107

Connector Part Information

Harness Type: Engine
OEM Connector: 13889776
Service Connector: 19301717
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

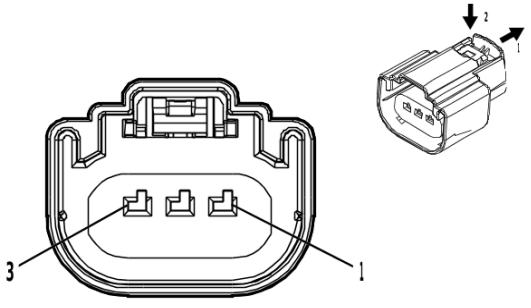
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B37B Engine Oil Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
	0.5	BK/YE	548	Engine Control Sensors Low Reference 1	I	—
3	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—
	0.5	WH/RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—

B47 Fuel Pressure Sensor



4569745

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343869
Service Connector: 19179750
Description: 3-Way F 150 MX Series, Sealed (BK)

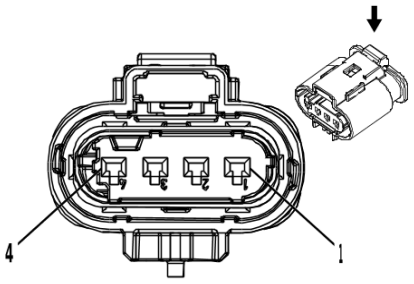
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

B47 Fuel Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/WH	7446	Fuel Pressure Sensor Signal	I	—
2	0.5	BK/YE	7447	Fuel Pressure Sensor Low Reference	I	—
3	0.5	BN/RD	7445	Fuel Pressure Sensor 5V Reference	I	—

B47B Fuel Rail Pressure Sensor



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

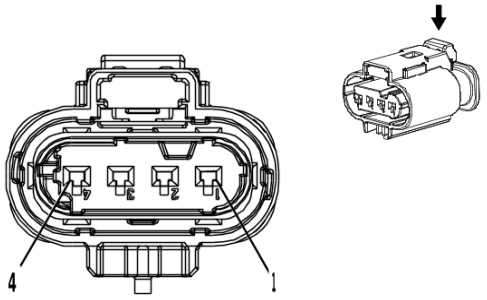
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B47B Fuel Rail Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
2	0.5	BN/YE	2161	Fuel Rail Pressure Sensor 2 Signal	I	—
3	0.5	BK/L-GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
4	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—

B52C Heated Oxygen Sensor - Bank 1 Sensor 1



4381050

Connector Part Information

Harness Type: Engine
OEM Connector: 33253021
Service Connector: 19354075
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

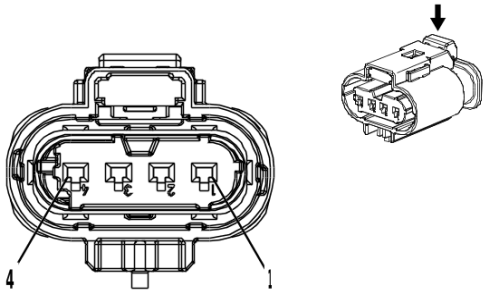
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B52C Heated Oxygen Sensor - Bank 1 Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	I	—
2	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
3	0.5	WH/BK	3111	HO2S Low Signal Bank 1 Sensor 1 (3)	I	—
4	0.5	VT/GY	3110	HO2S High Signal Bank 1 Sensor 1	I	—

B52D Heated Oxygen Sensor - Bank 1 Sensor 2



4036370

Connector Part Information

Harness Type: Engine
OEM Connector: 15532690
Service Connector: 19330920
Description: 4-Way F 1.2 Multilock Series, Sealed (GY)

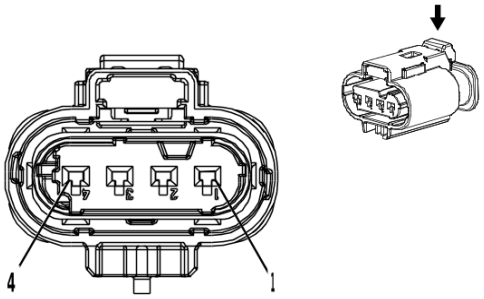
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B52D Heated Oxygen Sensor - Bank 1 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	I	—
2	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
3	0.5	WH/YE	3121	HO2S Low Signal Bank 1 Sensor 2	I	—
4	0.5	VT/BU	3120	HO2S High Signal Bank 1 Sensor 2	I	—

B52E Heated Oxygen Sensor - Bank 2 Sensor 1



4381050

Connector Part Information

Harness Type: Engine
OEM Connector: 33253021
Service Connector: 19354075
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

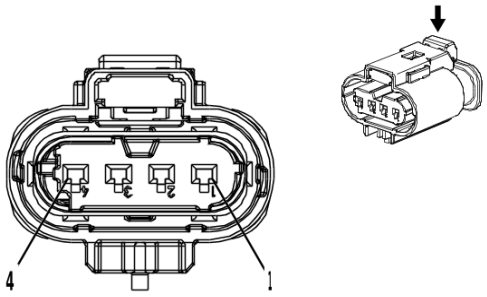
B52E Heated Oxygen Sensor - Bank 2 Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/YE	3212	HO2S Heater Low Control Bank 2 Sensor 1	I	—
2	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
3	0.5	YE/WH	3211	HO2S Low Signal Bank 2 Sensor 1	I	—

B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
4	0.5	VT/WH	3210	HO2S High Signal Bank 2 Sensor 1	I	—

B52F Heated Oxygen Sensor - Bank 2 Sensor 2



4036370

Connector Part Information

Harness Type: Engine
OEM Connector: 15532690
Service Connector: 19330920
Description: 4-Way F 1.2 Multilock Series, Sealed (GY)

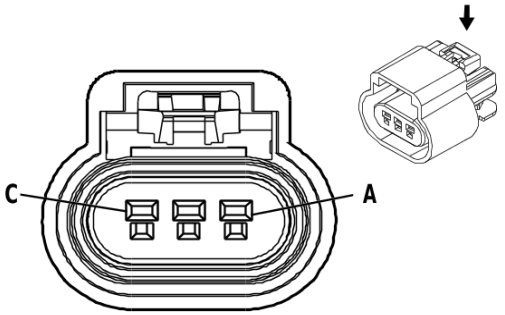
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B52F Heated Oxygen Sensor - Bank 2 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	3223	HO2S Heater Low Control Bank 2 Sensor 2	I	—
2	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
3	0.5	YE/BU	3221	HO2S Low Signal Bank 2 Sensor 2	I	—
4	0.5	VT/L-GN	3220	HO2S High Signal Bank 2 Sensor 2	I	—

B55 Engine Hood Switch



646415

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13519047
Service Connector: 19368886
Description: 3-Way F 150 GT Series, Sealed (BK)

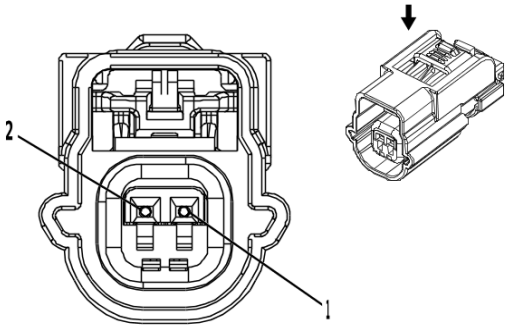
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

B55 Engine Hood Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN/GN	109	Hood Ajar Switch Signal	I	BTV
	0.5	PK/BK	109	Hood Ajar Switch Signal	I	-BTV
B	0.5	BK/BN	5531	Hood Closed Switch Signal	I	BTV
	0.5	PU	5531	Hood Closed Switch Signal	I	-BTV
C	0.5	BK	250	Ground 2	I	—

B59 Front Impact Sensor



3556418

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13593078

Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (GY)

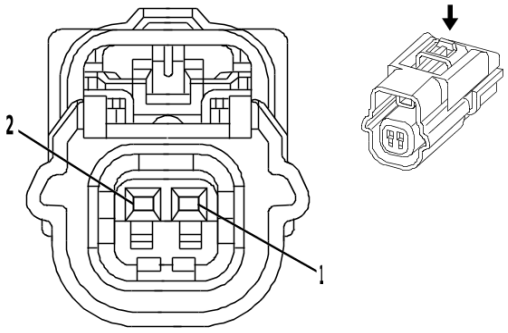
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B59 Front Impact Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	6618	Front Middle Impact Discriminating Sensor Signal	I	—
2	0.5	D-BU/WH	6619	Front Middle Impact Discriminating Sensor Low Reference	I	—

B63LF Side Impact Sensor - Left Front



1664592

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13528494
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Kaizen Series, Sealed (BK)

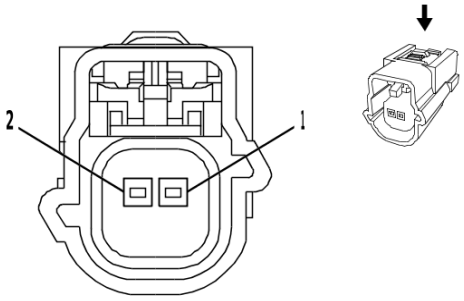
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B63LF Side Impact Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	2132	Left Front Side Impact Sensor Signal	I	—
2	0.5	PU/WH	6628	Left Front Side Impact Sensor Low Reference	I	—

B63LR Side Impact Sensor - Left Rear



2179777

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13610095
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (GY)

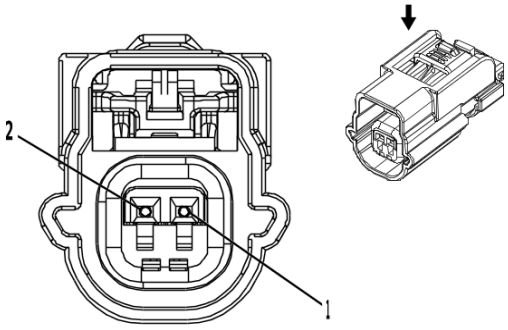
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B63LR Side Impact Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-GN/WH	6620	Left Middle Side Impact Sensor Signal	I	—
2	0.5	GY/BK	6621	Left Middle Side Impact Sensor Low Reference	I	—

B63RR Side Impact Sensor - Right Rear (E24)



3556418

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13593078
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (GY)

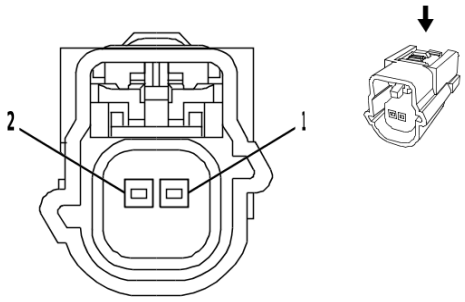
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B63RR Side Impact Sensor - Right Rear (E24)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-BU/BK	6624	Right Middle Side Impact Sensor Signal	I	—
2	0.5	L-GN/WH	6625	Right Middle Side Impact Sensor Low Reference	I	—

B63RR Side Impact Sensor - Right Rear (YA2)



2179777

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13610095
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (GY)

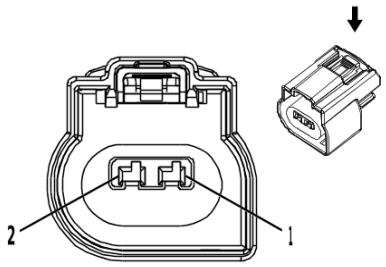
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B63RR Side Impact Sensor - Right Rear (YA2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-BU/BK	6624	Right Middle Side Impact Sensor Signal	I	—
2	0.5	L-GN/WH	6625	Right Middle Side Impact Sensor Low Reference	I	—

B68A Knock Sensor 1



2717073

Connector Part Information

Harness Type: Engine
OEM Connector: 13814755
Service Connector: 19301207
Description: 2-Way F 150 MX Series, Sealed (BK)

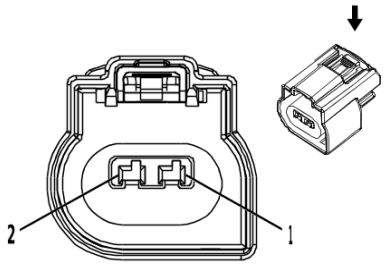
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

B68A Knock Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/GY	496	Knock Sensor 1 Signal	I	—
2	0.75	BK/YE	1716	Knock Sensor 1 Low Reference	I	—

B68B Knock Sensor 2



2717073

Connector Part Information

Harness Type: Engine
OEM Connector: 13814755
Service Connector: 19301207
Description: 2-Way F 150 MX Series, Sealed (BK)

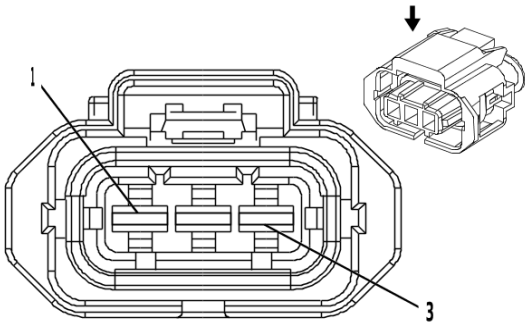
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

B68B Knock Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/GY	1876	Knock Sensor 2 Signal	I	—
2	0.75	BK/GY	2303	Knock Sensor 2 Low Reference	I	—

B74 Manifold Absolute Pressure Sensor



1914850

Connector Part Information

Harness Type: Engine
OEM Connector: 15397338
Service Connector: 13585845
Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (BK)

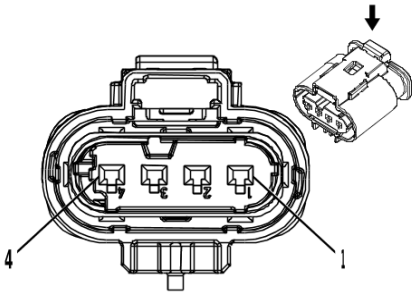
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

B74 Manifold Absolute Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
2	0.5	BK/L-GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
3	0.5	L-GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—

B75C Multifunction Intake Air Sensor (-LWN)



2717096

Connector Part Information

Harness Type: Engine
OEM Connector: 13815348
Service Connector: 13587298
Description: 4-Way F 1.2 Multilock Series, Sealed (L-GY)

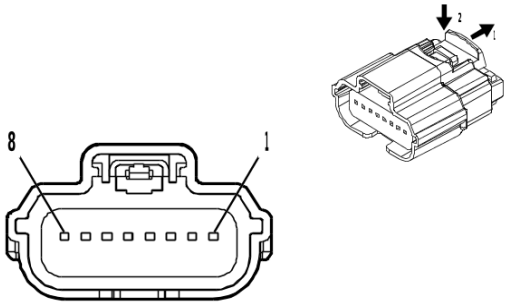
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B75C Multifunction Intake Air Sensor (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	—
2	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	I	—
3	0.5	L-GN/WH	4622	Engine Control Module LIN Bus 2	I	—
4	0.75	BK/WH	1551	Ground 15	I	—

B75C Multifunction Intake Air Sensor (LWN)



4708234

Connector Part Information

Harness Type: Engine
OEM Connector: 35192853

Service Connector: 84677313
Description: 8-Way F 64 Series, Sealed (BK)

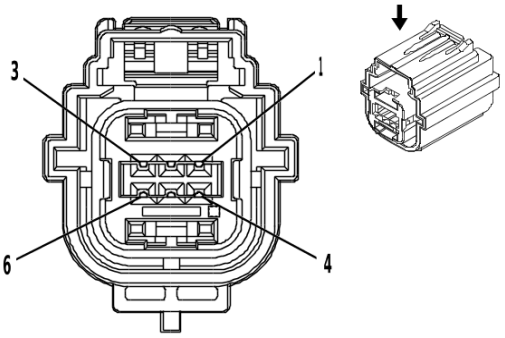
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B75C Multifunction Intake Air Sensor (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BU	6289	Intake Air Temperature Sensor Signal	I	—
2	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
3	0.5	BK/VT	2760	Intake Air Temperature Sensor Low Reference	I	—
4	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
5	0.75	VT/WH	1939	Run/Crank Ignition 1 Voltage 19	I	—
6	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	I	—
7	0.75	BK/WH	1551	Ground 15	I	—
8	0.5	BN/GY	4008	Humidity Sensor Signal	I	—

B87 Rearview Camera (-Cutaway)



2133378

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 13629704
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

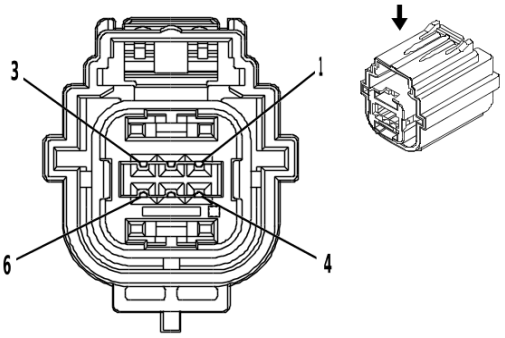
B87 Rearview Camera (-Cutaway)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	7641	Frontview Camera 2 Signal [+]	I	—

B87 Rearview Camera (-Cutaway) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.5	Bare	6799	Camera Shield Ground	I	—
3	0.5	L-GN	24	Backup Lamp Control	I	—
4	0.5	L-BU	7642	Frontview Camera 2 Signal [-]	I	—
5	0.5	BK	351	Ground 3	I	—
6	0.5	PK	239	Run/Crank Ignition 1 Voltage 2	I	—

B87 Rearview Camera (Cutaway)



2133378

Connector Part Information

Harness Type: Rearview Camera
OEM Connector: 13629704
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Series, Sealed (GY)

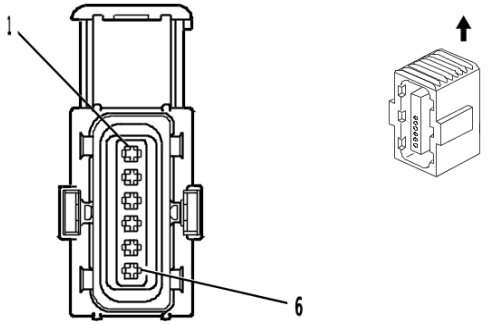
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B87 Rearview Camera (Cutaway)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	7641	Frontview Camera 2 Signal [+]	I	—
2	0.5	Bare	6799	Camera Shield Ground	I	—
3	0.5	L-GN	24	Backup Lamp Control	I	—
4	0.5	L-BU	7642	Frontview Camera 2 Signal [-]	I	—
5	0.5	BK/WH	351	Ground 3	I	—
6	0.5	PK	239	Run/Crank Ignition 1 Voltage 2	I	—

B107 Accelerator Pedal Position Sensor



1334452

Connector Part Information

Harness Type: Accelerator Pedal Position Sensor
OEM Connector: 15383136
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.2 Micro-Timer Series, Sealed (BK)

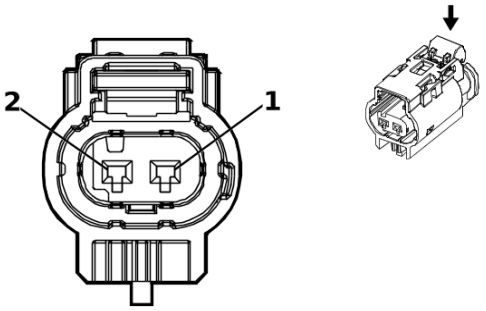
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B107 Accelerator Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	TN	1274	Accelerator Pedal Position 5V Reference 2	I	—
2	0.35	WH/BK	1164	Accelerator Pedal Position 5 Volt Reference 1	I	—
3	0.35	D-BU	1161	Accelerator Pedal Position Signal 1	I	—
4	0.35	BN	1271	Accelerator Pedal Position Low Reference 1	I	—
5	0.35	PU	1272	Accelerator Pedal Position Low Reference 2	I	—
6	0.35	L-BU	1162	Accelerator Pedal Position Signal 2	I	—

B130A Exhaust Gas Recirculation Temperature Sensor 1



5207726

Connector Part Information

Harness Type: Engine
OEM Connector: 33180624
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

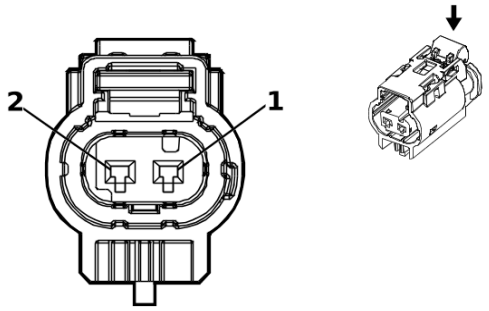
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B130A Exhaust Gas Recirculation Temperature Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	6275	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	I	—
2	0.5	YE/L-GN	3236	Exhaust Gas Recirculation Temperature Sensor 2 Signal	I	—

B130B Exhaust Gas Recirculation Temperature Sensor 2



3747581

Connector Part Information

Harness Type: Engine
OEM Connector: 33226772
Service Connector: 84727362
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

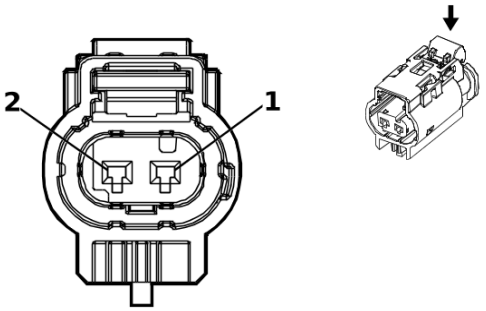
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B130B Exhaust Gas Recirculation Temperature Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BU	6274	Exhaust Gas Recirculation Temperature Sensor Low Reference	I	—
2	0.5	WH/BN	3237	Exhaust Gas Recirculation Temperature Sensor Signal	I	—

B131A Exhaust Temperature Sensor 1



3747581

Connector Part Information

Harness Type: Engine
OEM Connector: 33226772
Service Connector: 84727362
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

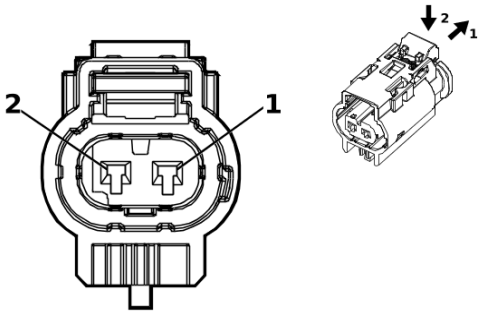
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B131A Exhaust Temperature Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	—
2	0.5	D-BU/WH	5277	Exhaust Gas Temperature Sensor 1 Signal	I	—

B131B Exhaust Temperature Sensor 2



3747580

Connector Part Information

Harness Type: Engine
OEM Connector: 33159713

Service Connector: 19332627
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

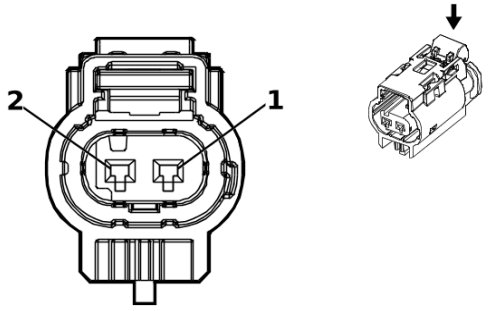
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B131B Exhaust Temperature Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	—
2	0.5	D-BU/ L-GN	5377	Exhaust Gas Temperature Sensor 2 Signal	I	—

B131C Exhaust Temperature Sensor 3



5207726

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180624
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

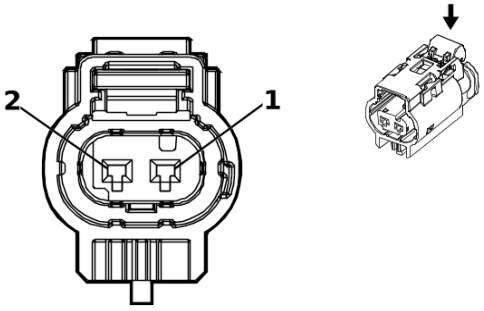
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B131C Exhaust Temperature Sensor 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/L-GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—
2	0.5	GY/L-GN	5378	Exhaust Gas Temperature Sensor 3 Signal	I	—

B131D Exhaust Temperature Sensor 4



3747581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33226772
Service Connector: 84727362
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

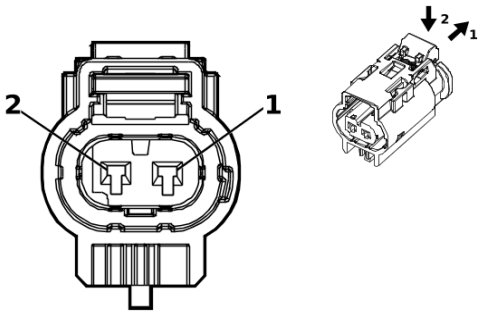
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B131D Exhaust Temperature Sensor 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/GY	3659	Exhaust Gas Temperature Sensor 4 Low Reference	I	—
2	0.5	VT/BN	3658	Exhaust Gas Temperature Sensor 4 Signal	I	—

B131E Exhaust Temperature Sensor 5



3747580

Connector Part Information

Harness Type: Chassis
OEM Connector: 33159713
Service Connector: 19332627
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

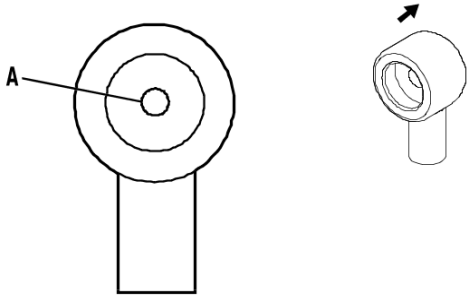
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B131E Exhaust Temperature Sensor 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/VT	3661	Exhaust Gas Temperature Sensor 5 Low Reference	I	—
2	0.5	D-BU/GY	3660	Exhaust Gas Temperature Sensor 5 Signal	I	—

B133 Brake Booster Fluid Flow Alarm Switch X1



2004808

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 6288440
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F Grip Series (BK)

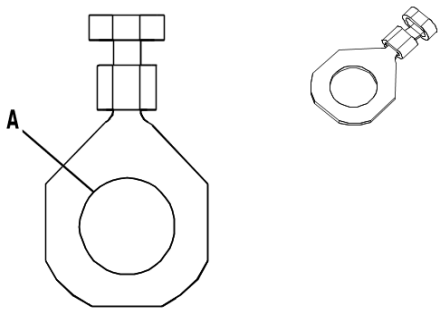
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

B133 Brake Booster Fluid Flow Alarm Switch X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	L-BU/BK	1928	Brake Booster Fluid Flow Alarm Switch Signal	I	—

B133 Brake Booster Fluid Flow Alarm Switch X2



3240148

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 12103516
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

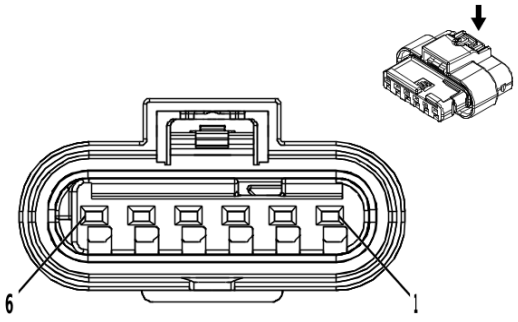
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

B133 Brake Booster Fluid Flow Alarm Switch X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK/WH	351	Ground 3	I	UJ1
	0.5	BK	350	Ground 3	I	-UJ1

B136 Exhaust Particulate Matter Sensor



3747582

Connector Part Information

Harness Type: Chassis
OEM Connector: 33226734
Service Connector: 19354530
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

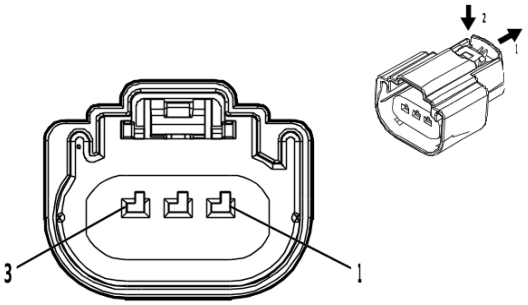
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B136 Exhaust Particulate Matter Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BK	150	Ground 1	I	—
2	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
3	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
4	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
5	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
6	1	GY	3672	NOx Sensor 2 Control	I	—

B150 Fuel Tank Pressure Sensor



4589538

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343864
Service Connector: 84569854
Description: 3-Way F 150 MX Series, Sealed (GY)

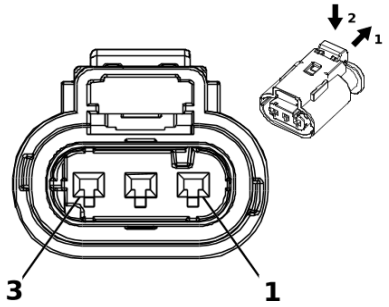
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

B150 Fuel Tank Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/WH	890	Fuel Tank Pressure Sensor Signal	I	—
2	0.5	BK/BN	6284	Fuel Tank Pressure Sensor Low Reference	I	—
3	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor



2717069

Connector Part Information

Harness Type: Chassis
OEM Connector: 13763990
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

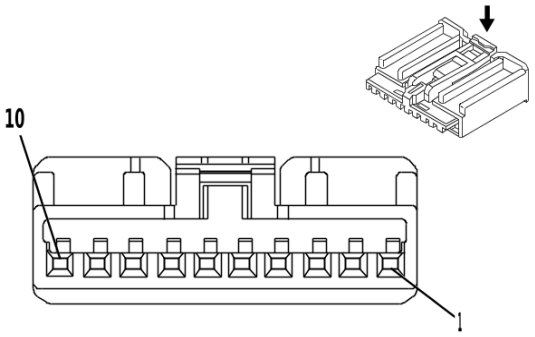
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU	6053	Exhaust Pressure Sensor 1 Signal	I	—
2	0.5	BK/YE	6055	Exhaust Pressure Sensor 1 Low Reference	I	—
3	0.5	WH/RD	6054	Exhaust Pressure Sensor 1 5V Reference	I	—

B174W Frontview Camera - Windshield



1862241

Connector Part Information

Harness Type: Headliner
OEM Connector: 13574592
Service Connector: 13576634
Description: 10-Way F 0.64 Kaizen Series (BK)

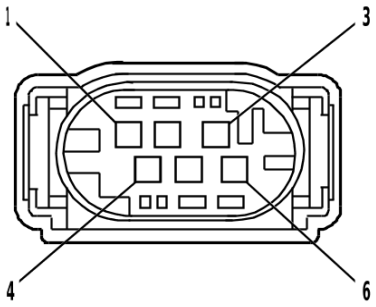
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (LT BU)	J-38125-215A

B174W Frontview Camera - Windshield

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1850	Ground 18	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	RD/L-GN	3140	Secondary Fused Battery Positive Voltage 31	I	—
4	0.5	WH	3152	Lane Departure Warning Indicator Control	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	—

B176 Multi-axis Acceleration Sensor Module



831393

Connector Part Information

Harness Type: Body
OEM Connector: 15355474
Service Connector: 15306420
Description: 6-Way F 0.64 Micro-Quadlock Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

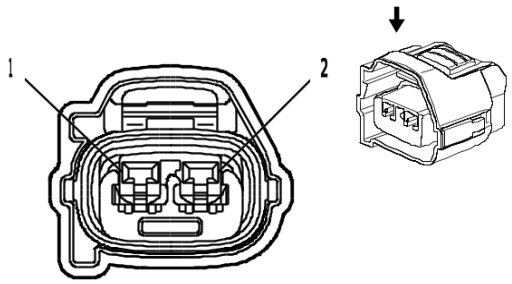
B176 Multi-axis Acceleration Sensor Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	6045	Run Ignition 3 Voltage	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data [+] 2	I	—

B176 Multi-axis Acceleration Sensor Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
6	0.5	BK/WH	2751	Ground 27	I	—

B193A Charge Air Cooler Inlet Temperature Sensor



2388842

Connector Part Information

Harness Type: Engine
OEM Connector: 15401053
Service Connector: 19368660
Description: 2-Way F 090 Series, Sealed (D-GY)

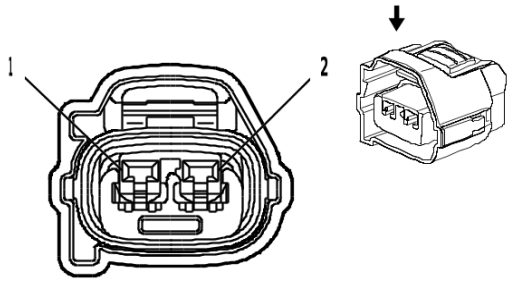
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-18 (BK)	No Tool Required

B193A Charge Air Cooler Inlet Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	—
2	0.5	YE/BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	—

B193B Charge Air Cooler Outlet Temperature Sensor



2388842

Connector Part Information

Harness Type: Engine
OEM Connector: 15401053
Service Connector: 19368660
Description: 2-Way F 090 Series, Sealed (D-GY)

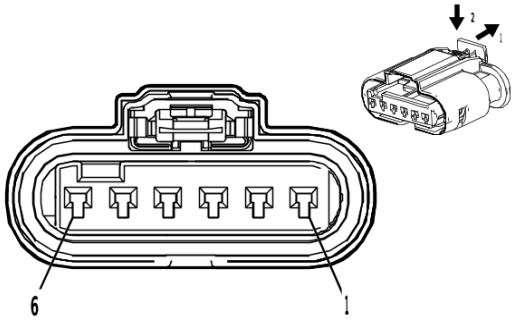
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-18 (BK)	No Tool Required

B193B Charge Air Cooler Outlet Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
2	0.5	YE/BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—

B195A Nitrogen Oxides Sensor 1



3960142

Connector Part Information

Harness Type: Engine
OEM Connector: 33230495
Service Connector: 19368560
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

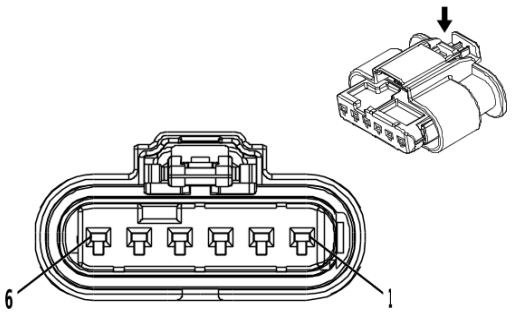
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B195A Nitrogen Oxides Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY	3672	NOx Sensor 2 Control	I	—
2	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
3	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
4	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
5	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
6	1	BK	150	Ground 1	I	—

B195B Nitrogen Oxides Sensor 2



4455148

Connector Part Information

Harness Type: Chassis
OEM Connector: 33226735
Service Connector: 19368561
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

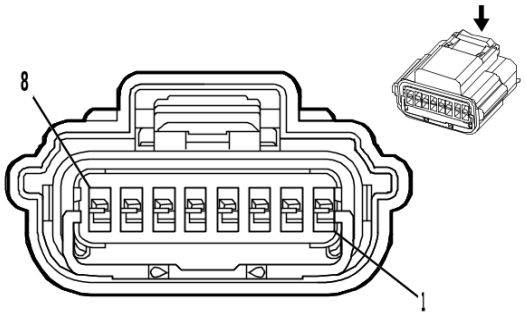
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

B195B Nitrogen Oxides Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY	3672	NOx Sensor 2 Control	I	—
2	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
6	1	BK	150	Ground 1	I	—

B218L Side Object Sensor Module - Left (UFT)



2581486

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 15543347
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 0.64 Series, Sealed (BK)

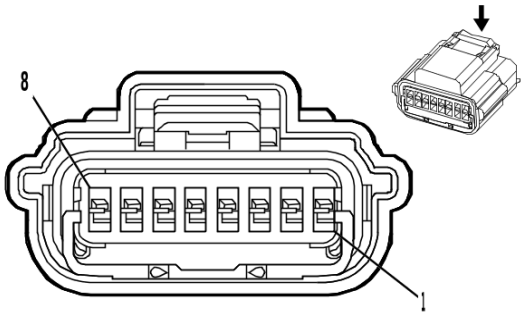
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B218L Side Object Sensor Module - Left (UFT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	GY/YE	5853	Driver Side Side Object Detection LED Signal 1	I	—
5	0.5	RD/L-GN	3140	Secondary Fused Battery Positive Voltage 31	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	L-GN/BK	5060	Low Speed GMLAN Serial Data	I	—
8	0.5	BK	2150	Ground 21	I	—

B218R Side Object Sensor Module - Right (UFT)



2581486

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 15543346
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 0.64 Series, Sealed (BK)

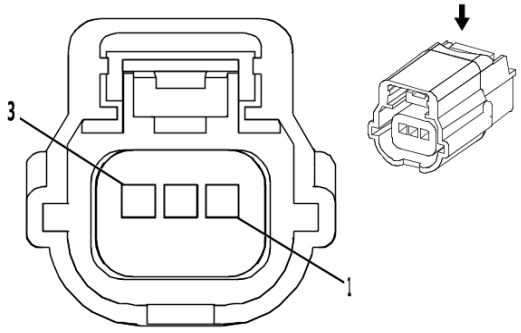
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B218R Side Object Sensor Module - Right (UFT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK	2150	Ground 21	I	—
4	0.5	GY	5861	Passenger Side Object Detection LED Signal 1	I	—
5	0.5	RD/L-GN	3140	Secondary Fused Battery Positive Voltage 31	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	L-GN/BK	5060	Low Speed GMLAN Serial Data	I	—
8	0.5	BK	2150	Ground 21	I	—

B306E Parking Assist Sensor - Rear Left Outer (UD7)



1664596

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

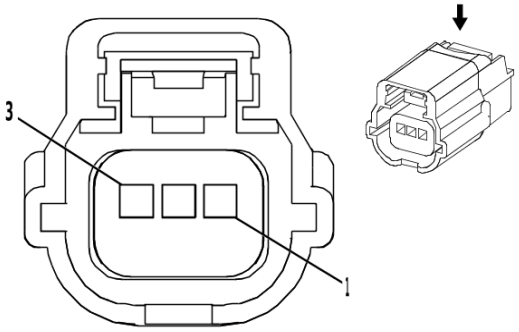
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B306E Parking Assist Sensor - Rear Left Outer (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Supply Voltage	I	—
2	0.5	GY	2379	Object Sensor Low Reference	I	—
	0.5	GY/GY	2379	Object Sensor Low Reference	I	—
3	0.5	YE	2375	Left Rear Outer Parking Assist Sensor Signal	I	—

B306F Parking Assist Sensor - Rear Left Middle (UD7)



1664596

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

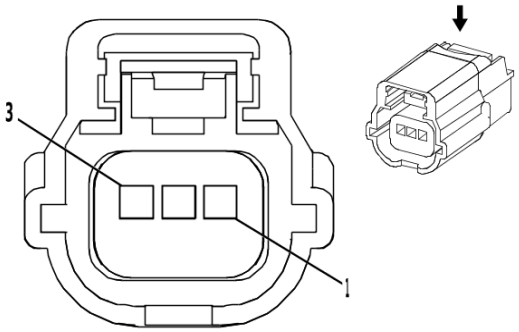
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B306F Parking Assist Sensor - Rear Left Middle (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Supply Voltage	I	—
2	0.5	GY	2379	Object Sensor Low Reference	I	—
	0.5	GY/GY	2379	Object Sensor Low Reference	I	—
3	0.5	OG	2376	Left Rear Middle Parking Assist Sensor Signal	I	—

B306G Parking Assist Sensor - Rear Right Middle (UD7)



1664596

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

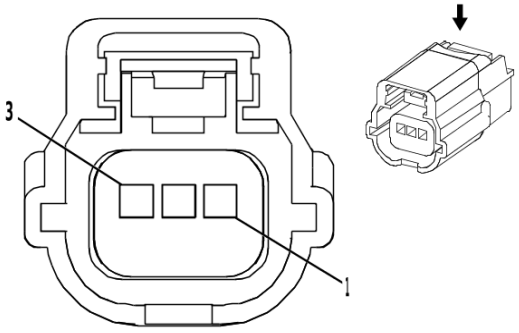
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B306G Parking Assist Sensor - Rear Right Middle (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Supply Voltage	I	—
2	0.5	GY	2379	Object Sensor Low Reference	I	—
	0.5	GY/GY	2379	Object Sensor Low Reference	I	—
3	0.5	GN	2377	Right Rear Middle Parking Assist Sensor Signal	I	—

B306H Parking Assist Sensor - Rear Right Outer (UD7)



1664596

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738

Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

B306H Parking Assist Sensor - Rear Right Outer (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Supply Voltage	I	—
2	0.5	GY	2379	Object Sensor Low Reference	I	—
	0.5	GY/GY	2379	Object Sensor Low Reference	I	—
3	0.5	PU	2378	Right Rear Outer Parking Assist Sensor Signal	I	—

C1 Battery ((-))

—

Connector Part Information

Harness Type: Battery Cable - Negative
OEM Connector: 12129465
Service Connector: Service by Harness - See Part Catalog
Description: Battery Cable

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	Not Available	No Tool Required

C1 Battery ((-))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	BK	50	Ground	I	—
	32	BK	50	Ground		—

C1 Battery ((+))

—

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12129465
Service Connector: Service by Harness - See Part Catalog
Description: Battery Cable

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	Not Available	No Tool Required

C1 Battery ((+))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	-(KW5/KW4)
	8	RD/BK	1	Unfused Battery Positive Voltage	I	KW5/KG4

C1B Battery - Auxiliary (-LWN)

—

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12146464
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

C1B Battery - Auxiliary (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

C1B Battery - Auxiliary (LWN)

—

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12129465
Service Connector: Service by Harness - See Part Catalog
Description: Battery Cable

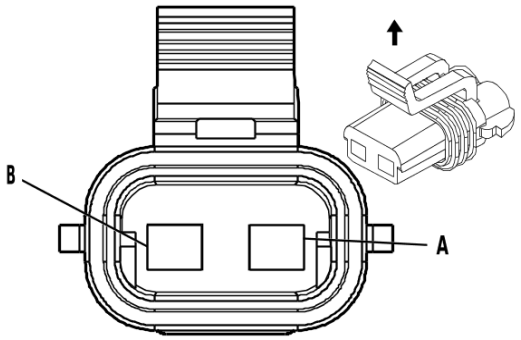
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	Not Available	No Tool Required

C1B Battery - Auxiliary (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

E2LF Side Marker Lamp - Left Front



68721

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

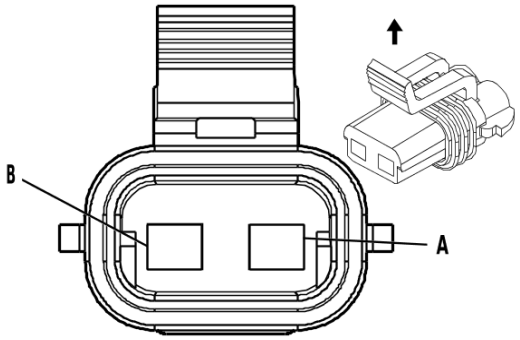
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E2LF Side Marker Lamp - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN	2309	Front Park Lamp Control	I	—
B	0.5	BK	250	Ground 2	I	—

E2RF Side Marker Lamp - Right Front



68721

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

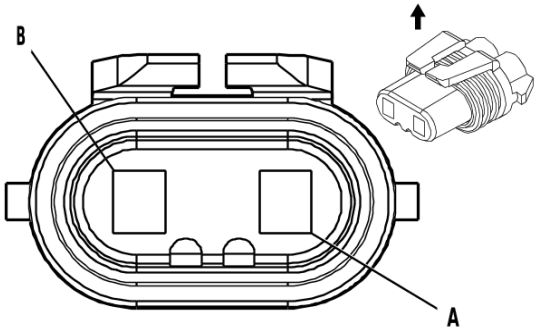
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E2RF Side Marker Lamp - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN	2309	Front Park Lamp Control	I	—
B	0.5	BK	650	Ground 6	I	—

E4E Headlamp - Left High Beam



684797

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059183

Service Connector: 12101898
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

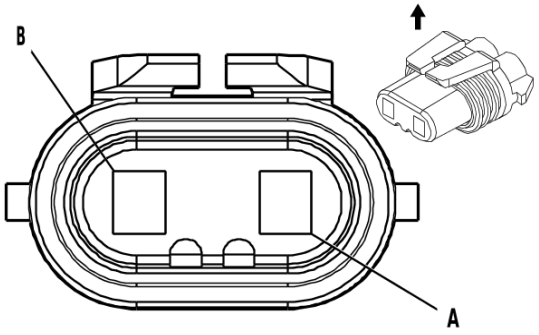
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4E Headlamp - Left High Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH	711	Left Headlamp High Beam Control	I	—
B	0.75	BK	250	Ground 2	I	—

E4F Headlamp - Right High Beam



684797

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059183
Service Connector: 12101898
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

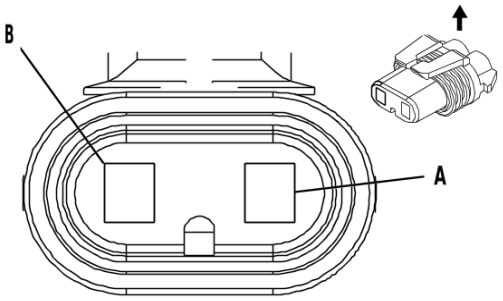
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4F Headlamp - Right High Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH	311	Right Headlamp High Beam Control	I	—
B	0.75	BK	650	Ground 6	I	—

E4G Headlamp - Left Low Beam



684796

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059181
Service Connector: 19301866
Description: 2-Way F 280 Metri-Pack Series, Sealed (GY)

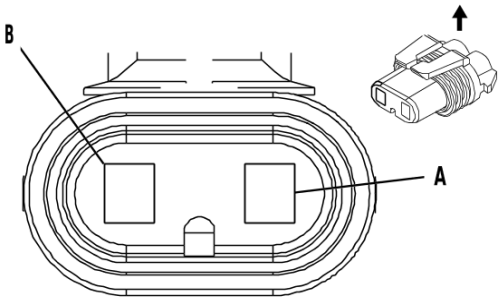
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4G Headlamp - Left Low Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	YE	712	Left Headlamp Low Beam Control	I	—
B	0.75	BK	250	Ground 2	I	—
	0.8	BK	250	Ground 2	I	—

E4H Headlamp - Right Low Beam



684796

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059181
Service Connector: 19301866
Description: 2-Way F 280 Metri-Pack Series, Sealed (GY)

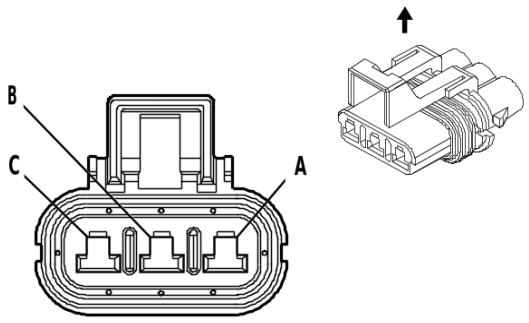
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4H Headlamp - Right Low Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BN/WH	312	Right Headlamp Low Beam Control	I	—
	0.75	YE	312	Right Headlamp Low Beam Control	I	—
B	0.75	BK	650	Ground 6	I	—
	0.8	BK	650	Ground 6	I	—

E4N Park/Turn Signal Lamp - Left



847206

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12040977
Service Connector: 12085492
Description: 3-Way F 280 Metri-Pack Series, Sealed (BK)

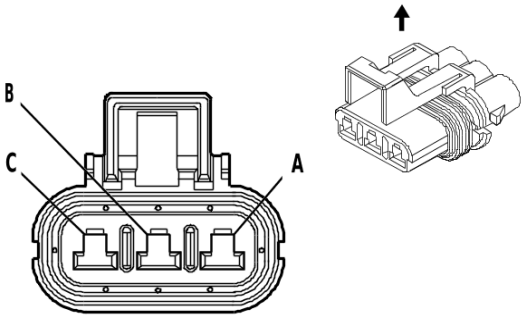
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4N Park/Turn Signal Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
	0.8	BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
B	0.5	BN	2309	Front Park Lamp Control	I	—
	0.5	GY/BN	2309	Front Park Lamp Control	I	—
C	0.5	BK	250	Ground 2	I	—

E4P Park/Turn Signal Lamp - Right



847206

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12040977
Service Connector: 12085492
Description: 3-Way F 280 Metri-Pack Series, Sealed (BK)

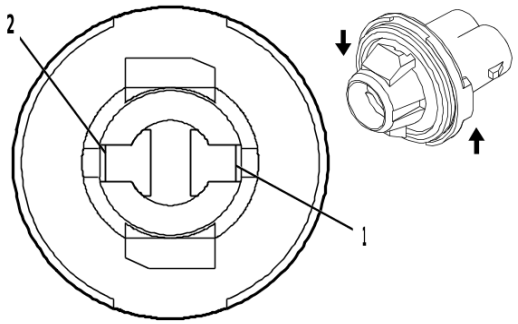
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

E4P Park/Turn Signal Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU/WH	1315	Right Front Turn Signal Lamp Control	I	—
B	0.5	BN	2309	Front Park Lamp Control	I	—
C	0.5	BK	650	Ground 6	I	—

E7 License Plate Lamp



5153536

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 15324946
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Lamp Socket Wedge Base, Type W-2 (D-GY)

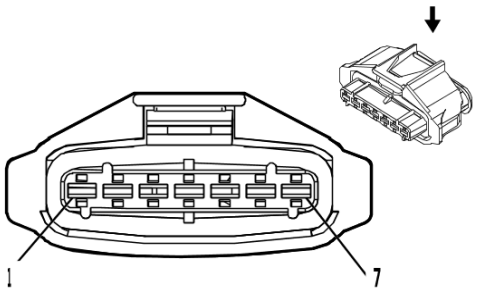
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

E7 License Plate Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	2509	Left Rear Park Lamp Control	I	—
2	0.5	BK	1050	Ground 10	I	—

E11A Fuel Heater/Water in Fuel Sensor



2537256

Connector Part Information

Harness Type: Chassis
OEM Connector: 10774827
Service Connector: 19354080
Description: 7-Way F 2.8 Junior Power Timer Series, Sealed (BK)

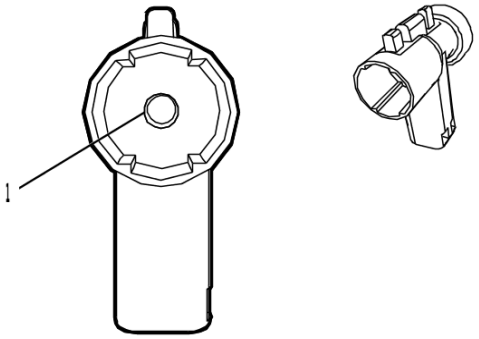
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

E11A Fuel Heater/Water in Fuel Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	7073	Fuel Temperature Sensor 1 Low Reference	I	—
2	0.5	BN/GY	7072	Fuel Temperature Sensor 1 Signal	I	—
3	0.5	D-BU/YE	6861	Water In Fuel Sensor Signal	I	—
4	0.75	BK	2150	Ground 21	I	—
5	0.75	VT/GY	2739	Run/Crank Ignition 1 Voltage 27	I	—
6	2.5	VT/L-GN	355	—	I	—
7	2.5	BK	2150	Ground 21	I	—

E12A Glow Plug 1



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F (BK)

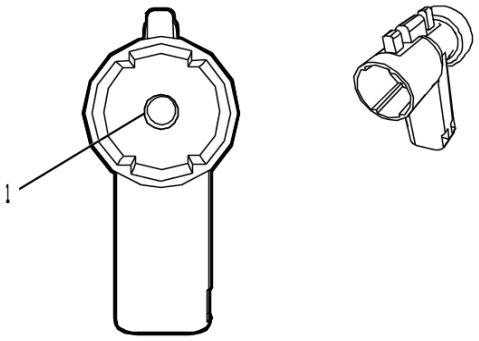
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

E12A Glow Plug 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/BK	—	—	I	—

E12B Glow Plug 2



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F (BK)

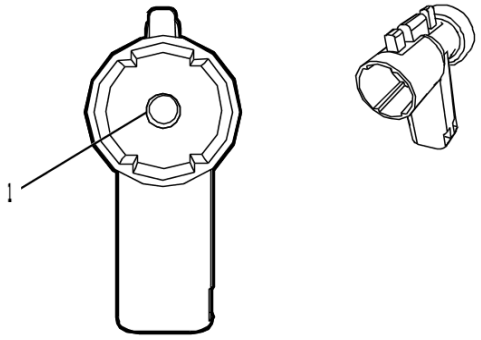
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

E12B Glow Plug 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	RD/BK	—	—	I	—

E12C Glow Plug 3



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F (BK)

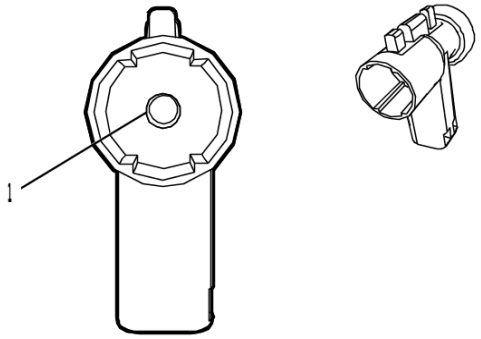
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

E12C Glow Plug 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	WH/BK	—	—	I	—

E12D Glow Plug 4



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F (BK)

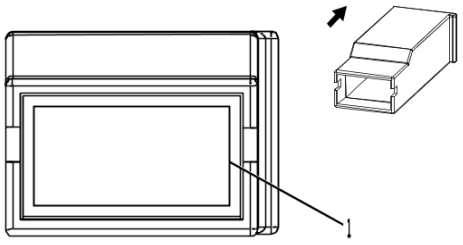
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

E12D Glow Plug 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	—	—	I	—

E18L Rear Defogger Grid - Left X1



2500421

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

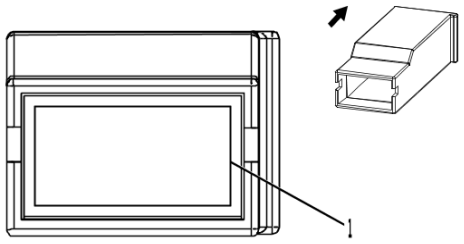
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required

E18L Rear Defogger Grid - Left X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	PU	293	Rear Defogger Grid Control	I	—

E18L Rear Defogger Grid - Left X2



2500421

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

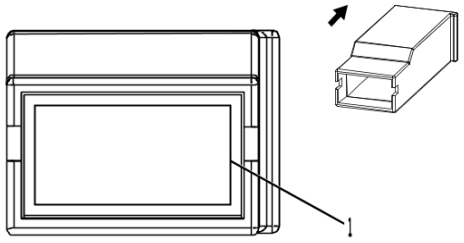
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required

E18L Rear Defogger Grid - Left X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	BK	850	Ground 8	I	—

E18R Rear Defogger Grid - Right X1



2500421

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

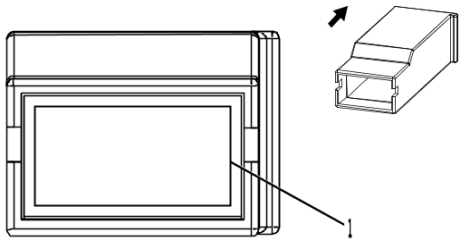
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required

E18R Rear Defogger Grid - Right X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	PU	293	Rear Defogger Grid Control	I	—

E18R Rear Defogger Grid - Right X2



2500421

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

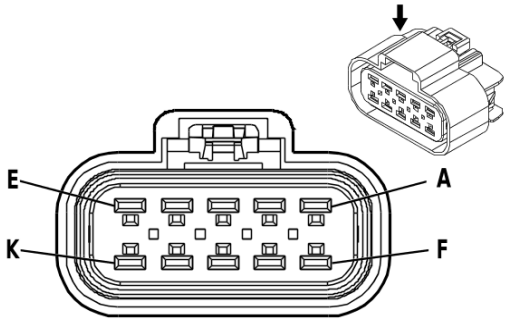
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required

E18R Rear Defogger Grid - Right X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	BK	850	Ground 8	I	—

E19 Coolant Heater



655815

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326660
Service Connector: 88986262
Description: 10-Way F 280 GT Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576407	J-35616-4A (PU)	J-38125-215A
II	13580824	J-35616-4A (PU)	J-38125-215A
III	13580824	J-35616-4A (PU)	J-38125-553

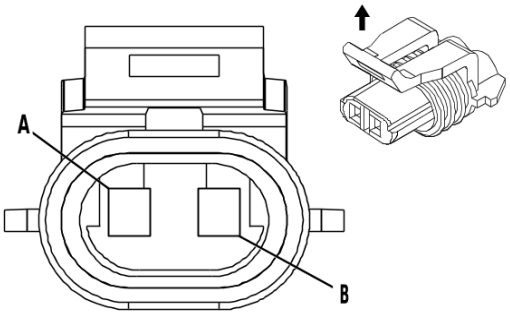
E19 Coolant Heater

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	I	—
B	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	III	—
C	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	III	—
D	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	III	—
E	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	III	—
F	0.8	D-BU/ L-GN	7077	Auxiliary Heater Fuel Pump Control	II	—
G	—	—	—	Not Occupied	—	—
H	2	BK	150	Ground 1	I	—
J	0.5	WH/BU	5986	Serial Data Communication Enable	III	—

E19 Coolant Heater (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
K	—	—	—	Not Occupied	—	—

E22 Underhood Lamp



537107

Connector Part Information

Harness Type: Underhood Lamp
OEM Connector: 12052644
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

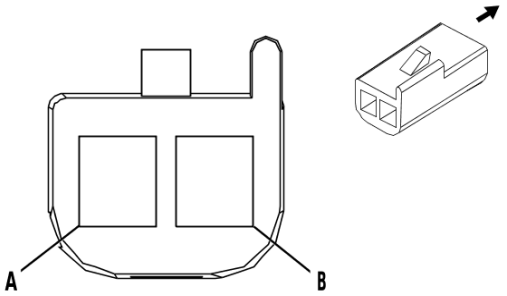
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E22 Underhood Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	1732	Control Module 12V Reference 3	I	—
B	0.5	BK	1250	Ground 12	I	—

E36AC Dome Lamp - Left Roof Rail



82383

Connector Part Information

Harness Type: Body
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

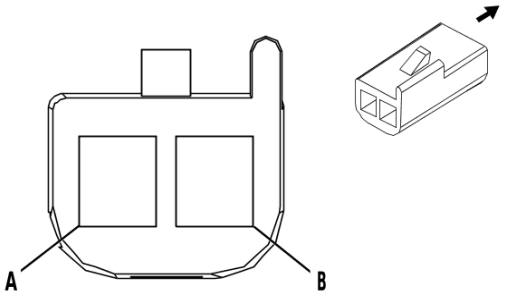
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E36AC Dome Lamp - Left Roof Rail

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground 8	I	—

E36AD Dome Lamp - Right Roof Rail



82383

Connector Part Information

Harness Type: Body
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

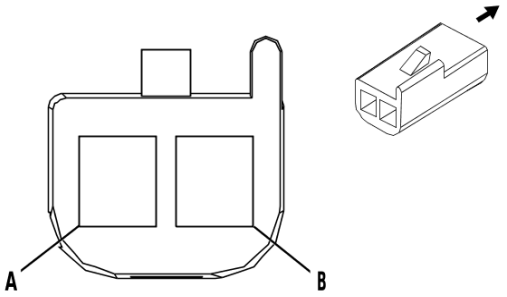
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E36AD Dome Lamp - Right Roof Rail

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground 8	I	—

E36AH Dome Lamp



82383

Connector Part Information

Harness Type: Body
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

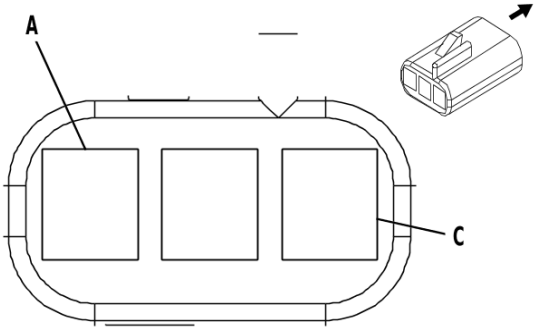
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E36AH Dome Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground 8	I	—

E37F Dome/Reading Lamps - Front



333035

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047781
Service Connector: 13586139
Description: 3-Way F 150 Metri-Pack Series (BK)

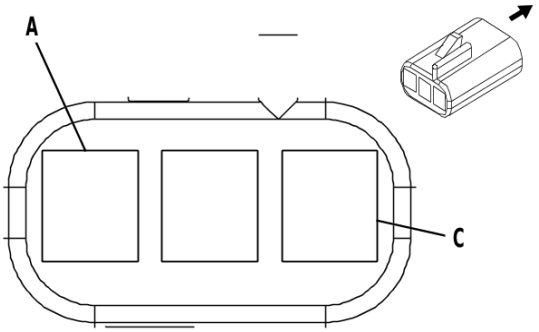
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E37F Dome/Reading Lamps - Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU/WH	149	Courtesy Lamp Control	I	—
B	1 0.8	BK BK	1850 1850	Ground 18 Ground 18	I I	((C69/DH6)-YF1)/ -YF1) (-DH6-C69)/(YF1)
C	0.8	OG	1732	Control Module 12V Reference 3	I	—

E37M Dome/Reading Lamps - Middle



333035

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047781
Service Connector: 13586139
Description: 3-Way F 150 Metri-Pack Series (BK)

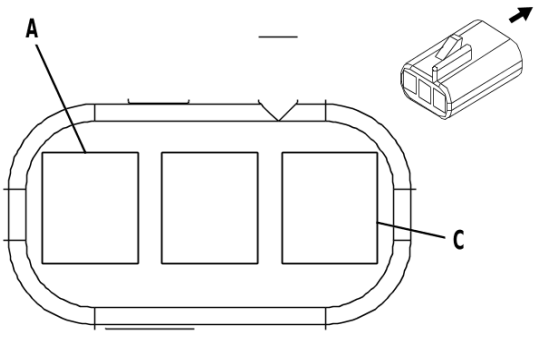
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E37M Dome/Reading Lamps - Middle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.5	BK	1050	Ground 10	I	—
C	0.8	OG	1732	Control Module 12V Reference 3	I	—

E37R Dome/Reading Lamps - Rear



333035

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047781
Service Connector: 13586139
Description: 3-Way F 150 Metri-Pack Series (BK)

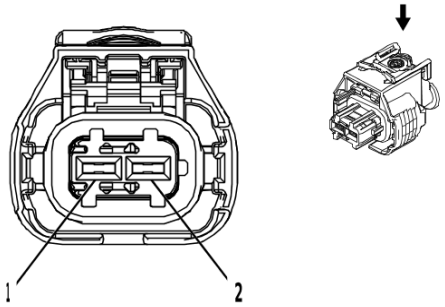
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

E37R Dome/Reading Lamps - Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.5	BK	1050	Ground 10	I	—
C	0.8	OG	1732	Control Module 12V Reference 3	I	—

E45 Positive Crankcase Ventilation Heater



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

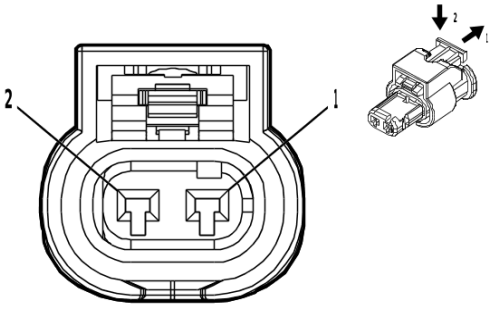
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

E45 Positive Crankcase Ventilation Heater

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BU	1497	Positive Crankcase Ventilation Heater Control	I	—
2	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—

F101 Passenger Instrument Panel Air Bag



2698576

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13863037

Service Connector: 19369032
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

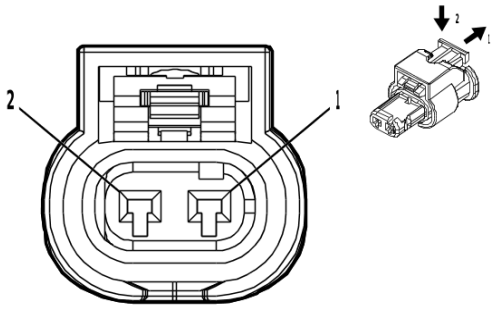
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

F101 Passenger Instrument Panel Air Bag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	I	—
2	0.5	OG	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	I	—

F105LF Roof Rail Air Bag - Left Front



2698576

Connector Part Information

Harness Type: Body
OEM Connector: 13863037
Service Connector: 19369032
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

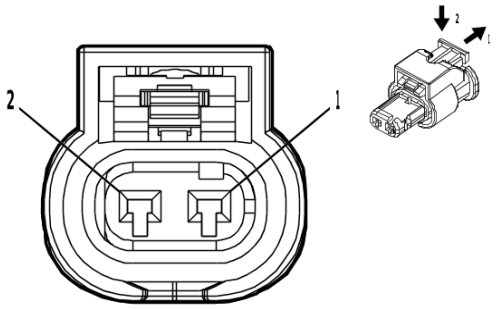
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

F105LF Roof Rail Air Bag - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	PK	5020	Left Front Roof Rail Air Bag Low Control	I	—
2	0.5	PU/WH	5019	Left Front Roof Rail Air Bag High Control	I	—

F105RF Roof Rail Air Bag - Right Front



2698576

Connector Part Information

Harness Type: Body
OEM Connector: 13863037
Service Connector: 19369032
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

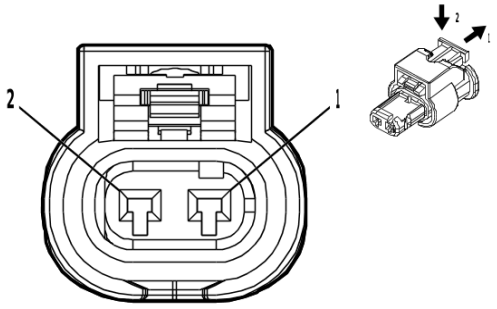
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

F105RF Roof Rail Air Bag - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BK	5022	Right Front Roof Rail Air Bag Low Control	I	—
2	0.5	YE/BK	5021	Right Front Roof Rail Air Bag High Control	I	—

F105RR Roof Rail Air Bag - Right Rear



2698576

Connector Part Information

Harness Type: Body
OEM Connector: 13863037
Service Connector: 19369032
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

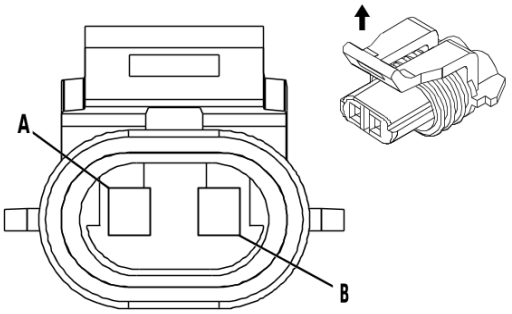
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

F105RR Roof Rail Air Bag - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	TN/BK	7016	Right Rear Roof Rail Air Bag Low Control	I	—
2	0.5	L-BU	7015	Right Rear Roof Rail Air Bag High Control	I	—

G7 Coolant Heater Fuel Pump



537107

Connector Part Information

Harness Type: Chassis
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

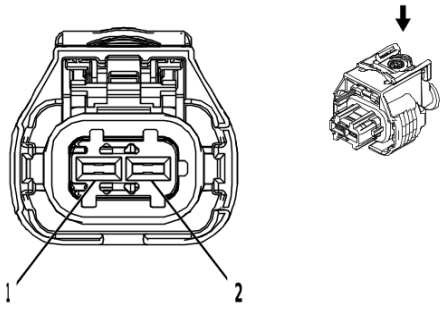
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

G7 Coolant Heater Fuel Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/ L-GN	7077	Auxiliary Heater Fuel Pump Control	I	—
B	0.8	BK	150	Ground 1	I	—

G13 Generator X1



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

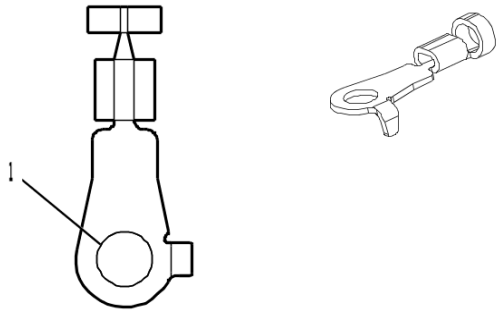
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

G13 Generator X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/WH	225	Generator Turn On Signal	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X2 (L8T+KG4)



4833656

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 15544794
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

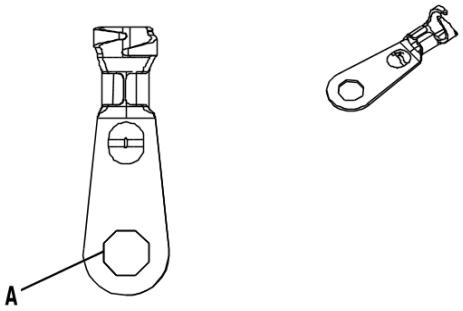
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

G13 Generator X2 (L8T+KG4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	25	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (L8T+KW5)



3214043

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 33257772
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

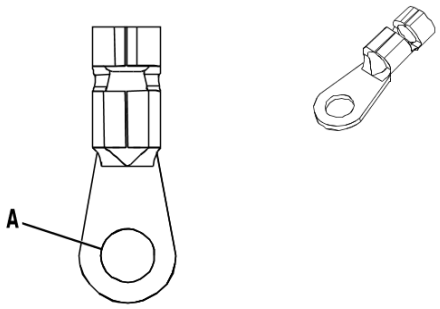
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

G13 Generator X2 (L8T+KW5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (LV1+K68)



2268698

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12129598
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

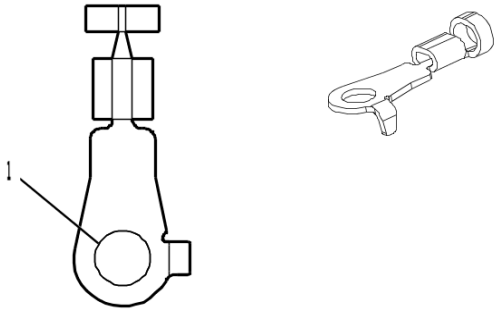
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

G13 Generator X2 (LV1+K68)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (LV1+KW5)



4833656

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 15544794
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

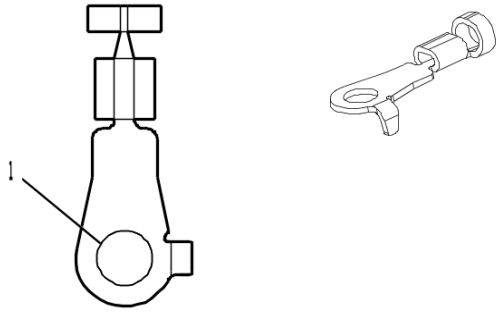
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

G13 Generator X2 (LV1+KW5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	25	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (LWN)



4833656

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 15544794
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

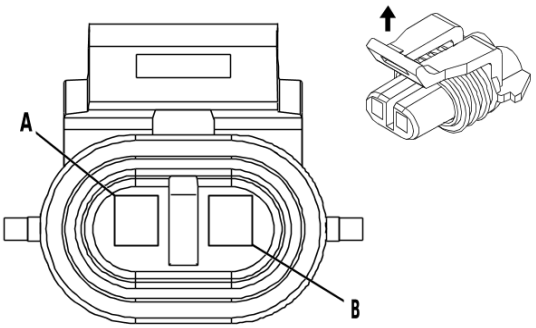
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

G13 Generator X2 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	25	RD	1	Unfused Battery Positive Voltage	I	—

G24 Windshield Washer Pump



635009

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series (BK)

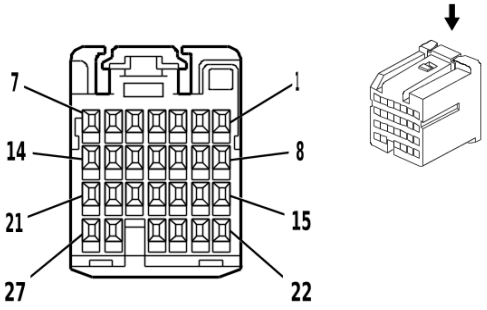
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

G24 Windshield Washer Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	228	Windshield Washer Pump Control	I	—
B	0.5	BK	350	Ground 3	I	—

K9 Body Control Module X1



1664495

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482789
Service Connector: 88988838
Description: 27-Way F HIT Series (L-GN)

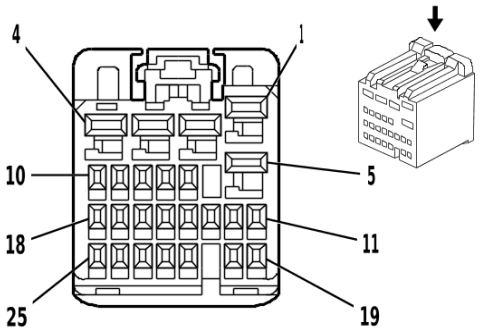
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A
II	13578820	J-35616-64B (LT BU)	J-38125-12A

K9 Body Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	PK	1020	Off/Run/Crank Ignition Voltage 2	I	—
3	0.35	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
4	0.35	WH	530	Off/Run/Crank Ignition Voltage	I	—
5	0.35	L-GN	1715	Windshield Wiper Switch High Signal	I	—
6	0.35	L-GN	6818	Steering Wheel Controls Signal 1	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	TN/BK	6009	Windshield Wiper Switch Low Reference	I	—
9	0.35	L-BU	1714	Windshield Wiper Switch Low Signal	I	—
10 - 13	—	—	—	Not Occupied	—	—
14	0.35	PK	3	Run/Crank Ignition 1 Voltage	I	—
15	0.35	D-GN	663	Hazard Warning Switch Left Turn Signal	I	—
16	0.35	TN	664	Hazard Warning Switch Right Turn Signal	I	—
17	0.35	PK	1444	Steering Wheel Controls 12 Volt Reference	I	—
18	0.35	YE	525	High Beam Select Switch Low Beam Signal	I	—
19	0.35	WH	111	Hazard Warning Switch Signal	I	—
20	0.35	PU	5526	Tap Up/Down Switch Signal	I	—
21	0.35	BN	4	Accessory Voltage	I	—
22	—	—	—	Not Occupied	—	—
23	0.35	L-BU	1788	Traction Control Switch Signal 1	I	—
24	0.35	PK	94	Windshield Washer Switch Signal	I	—
25	0.35	YE	307	Headlamp Switch Flash Signal	I	—
26	0.5	TN/WH	816	Brake Transmission Shift Interlock Solenoid Actuator Control	II	—
27	—	—	—	Not Occupied	—	—

K9 Body Control Module X2



1664496

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482790
Service Connector: 88988839
Description: 25-Way F HIT Series (NA)

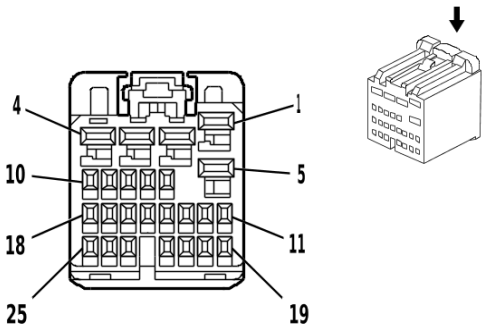
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A
II	13578820	J-35616-64B (LT BU)	J-38125-12A
III	13587507	J-35616-35 (VT)	J-38125-12A

K9 Body Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	OG	1732	Control Module 12V Reference 3	III	—
2	0.5	RD/WH	2540	Secondary Fused Battery Positive Voltage 25	III	—
3	0.5	BN/WH	230	Instrument Panel Lamp Dimming Control	III	—
4	—	—	—	Not Occupied	—	—
5	0.8	D-BU/WH	149	Courtesy Lamp Control	III	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.35	L-BU	13	Headlamp Switch Park Lamp Signal	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.35	WH	278	Ambient Light Sensor Signal	I	—
12	0.35	WH	103	Headlamp Switch On Signal	I	—
13 - 16	—	—	—	Not Occupied	—	—
17	0.35	D-GN	306	Headlamp Switch Off Signal	I	—
18	0.35	D-BU/WH	149	Courtesy Lamp Control	I	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	D-BU	6727	Vehicle Stability Control Switch Signal	II	—
22	0.35	D-BU	38	Backup Lamp Relay Control	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.35	PU	328	Dome/Reading Lamp Disable Switch Signal	I	—

K9 Body Control Module X3



1664498

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482791
Service Connector: 88988840
Description: 25-Way F HIT Series (L-BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A
II	13578820	J-35616-64B (LT BU)	J-38125-12A
III	13587507	J-35616-35 (VT)	J-38125-12A

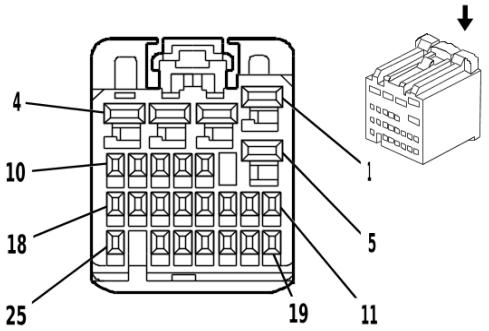
K9 Body Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	BK/WH	351	Ground 3	III	—
2	0.8	RD/WH	2140	Secondary Fused Battery Positive Voltage 21	III	—
3	0.5	RD/WH	3840	Secondary Fused Battery Positive Voltage 38	III	—
4	—	—	—	Not Occupied	—	—
5	0.8	BK/WH	351	Ground 3	III	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
9	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
10	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
11	0.35	D-GN	44	Instrument Panel Lamp Dimmer Switch Signal	I	—
12	0.35	OG/WH	812	Dimmer Switch High Reference	I	—
13	0.5	TN	5380	Brake Position Sensor Signal	II	—
14	0.5	BN/WH	5382	Brake Position Sensor Low Reference	II	—
15	0.5	GY	5381	Brake Position Sensor 5V Reference	II	—
16	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
17	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
18	0.5	YE	6817	LED Backlight Dimming Control 1	II	—
19	0.5	WH/BU	5986	Serial Data Communication Enable	II	—
20 - 21	—	—	—	Not Occupied	—	—
22	0.35	D-GN/WH	7158	Cruise Control Indicator Dimming Signal	I	—

K9 Body Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
23 - 24	—	—	—	Not Occupied	—	—
25	0.35	WH	6816	Indicator Dimming Control	I	—

K9 Body Control Module X4



1664499

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482792
Service Connector: 88988841
Description: 25-Way F HIT Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A
II	13578820	J-35616-64B (LT BU)	J-38125-12A
III	13587507	J-35616-35 (VT)	J-38125-12A

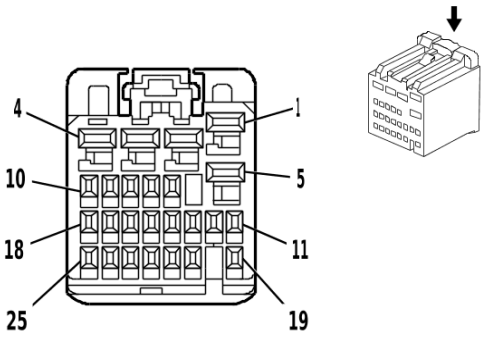
K9 Body Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	RD/WH	2740	Secondary Fused Battery Positive Voltage 27	III	—
2	0.8	RD/WH	3040	Secondary Fused Battery Positive Voltage 30	III	—
3	0.8	RD/WH	2940	Secondary Fused Battery Positive Voltage 29	III	—
4	0.8	RD/WH	2240	Secondary Fused Battery Positive Voltage 22	III	—
5	0.8	D-BU/WH	1315	Right Front Turn Signal Lamp Control	III	—
6	0.35	D-GN	6134	Body Control Module LIN Bus 3	I	—
7	0.35	YE	196	Windshield Wiper Motor Park Switch Signal	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	BK/WH	451	Ground 4	II	—
10	0.5	RD/WH	2840	Secondary Fused Battery Positive Voltage 28	II	—
11	—	—	—	Not Occupied	—	—
12	0.35	YE	5187	Right Trailer Turn Signal Lamp Control	I	—
13	0.35	OG	5186	Left Trailer Turn Signal Lamp Control	I	—

K9 Body Control Module X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
14	—	—	—	Not Occupied	—	—
15	0.35	OG	2268	Windshield Washer Relay Control	I	—
16	0.35	TN/WH	1969	Headlamp High Beam Relay Control	I	—
17	0.5	PK/BK	109	Hood Ajar Switch Signal	II	—
18	—	—	—	Not Occupied	—	—
19	0.5	D-BU	5985	Accessory Wake-Up Serial Data	II	—
20	—	—	—	Not Occupied	—	—
21	0.35	YE	5199	Run/Crank Relay Coil Control	I	—
22	—	—	—	Not Occupied	—	—
23	0.35	PU	544	DRL Relay Control	I	—
24 - 25	—	—	—	Not Occupied	—	—

K9 Body Control Module X5



1664500

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15480179
Service Connector: 88988837
Description: 25-Way F HIT Series (BN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A
II	13578820	J-35616-64B (LT BU)	J-38125-12A
III	13587507	J-35616-35 (VT)	J-38125-12A

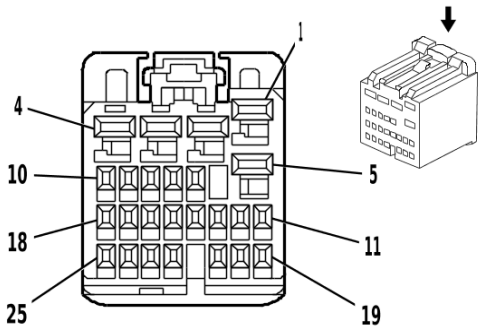
K9 Body Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE	618	Left Rear Turn Signal Lamp Control	III	—
2	1	D-GN	619	Right Rear Turn Signal Lamp Control	III	—
3	—	—	—	Not Occupied	—	—
4	0.8	L-BU/WH	1314	Left Front Turn Signal Lamp Control	III	—

K9 Body Control Module X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5	0.5	WH	5065	Stop Lamp Relay Coil Control	III	—
6	0.35	WH/BU	6311	Cruise/ETC/TCC Brake Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	PK	5076	Current Sensor Voltage Reference	II	—
9	0.5	WH	5075	Current Sensor Signal	II	—
10	0.5	BN	5077	Current Sensor Low Reference	II	—
11	0.35	YE	43	Accessory Voltage 0	I	—
12	—	—	—	Not Occupied	—	—
13	0.35	OG	300	Run Ignition 3 Voltage	I	—
14	0.5	L-GN	24	Backup Lamp Control	II	—
15	0.5	PU	5531	Hood Closed Switch Signal	II	—
16	0.35	L-BU	1134	Park Brake Switch Signal	I	—
17	—	—	—	Not Occupied	—	—
18	0.35	TN	28	Horn Relay Control	I	—
19	—	—	—	Not Occupied	—	—
20	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	I	—
21	0.35	TN	860	Windshield Wiper Switch High Signal	I	—
22	—	—	—	Not Occupied	—	—
23	0.35	PK/WH	1970	Headlamp Low Beam Relay Control 3	I	—
24	0.35	D-BU	45	Park Lamp Relay Control	I	—
25	—	—	—	Not Occupied	—	—

K9 Body Control Module X6



1664502

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482793
Service Connector: 88988842
Description: 25-Way F HIT Series (PK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (LT BU)	J-38125-12A

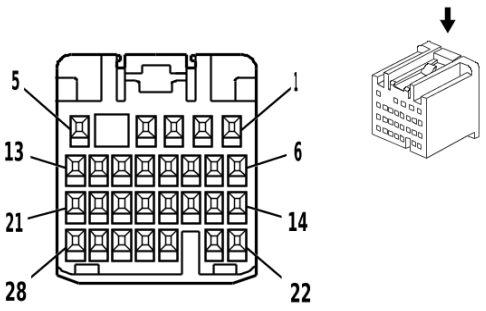
Terminal Part Information (cont'd)

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
II	13587507	J-35616-35 (VT)	J-38125-12A

K9 Body Control Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.8	L-BU	1320	Center High Mounted Stop Lamp Control 2	II	—
3 - 7	—	—	—	Not Occupied	—	—
8	0.35	TN/WH	746	Right Front Door Ajar Switch Signal	I	—
9	0.35	D-BU	245	Passenger Door Lock Switch Unlock Control	I	—
10	0.35	GY/BK	745	Left Front Door Ajar Switch Signal	I	—
11	—	—	—	Not Occupied	—	—
12	0.35	PK/BK	1303	Liftgate Ajar Switch Signal 1	I	—
13	—	—	—	Not Occupied	—	—
14	0.35	YE/BK	1181	Right Rear Door Open Switch Signal	I	—
15	—	—	—	Not Occupied	—	—
16	0.35	L-GN	1177	Right Front Door Open Switch Signal	I	—
17	—	—	—	Not Occupied	—	—
18	0.35	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
19 - 21	—	—	—	Not Occupied	—	—
22	0.35	L-GN	5926	Rear Body Opening Open Switch Signal	I	—
23 - 25	—	—	—	Not Occupied	—	—

K9 Body Control Module X7



1664505

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15466053
Service Connector: 88988806
Description: 28-Way F HIT Series (GY)

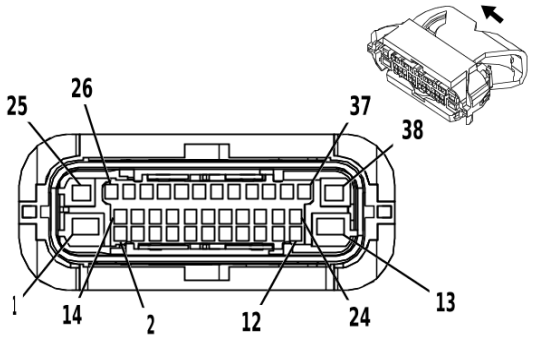
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578820	J-35616-64B (LT BU)	J-38125-12A

K9 Body Control Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	YE	356	Driver Door Lock Relay Unlock Control	I	—
3 - 5	—	—	—	Not Occupied	—	—
6	0.5	YE	356	Driver Door Lock Relay Unlock Control	I	—
7	0.5	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
10	—	—	—	Not Occupied	—	—
11	0.5	OG/BK	781	Driver Door Lock Switch Unlock Signal	I	—
12	0.5	PK/BK	780	Driver Door Lock Switch Lock Signal	I	—
13 - 22	—	—	—	Not Occupied	—	—
23	0.5	TN	126	Left Front Door Open Switch Signal	I	—
24	0.5	L-GN	66	A/C Request Signal	I	—
25 - 28	—	—	—	Not Occupied	—	—

K17 Electronic Brake Control Module



3638282

Connector Part Information

Harness Type: Chassis
OEM Connector: 13655518
Service Connector: 19303771
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK with BN Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301766	J-35616-14 (GN)	J-38125-215A
II	19368624	J-35616-35 (VT)	J-38125-212
III	84616649	J-35616-40 (BU)	J-38125-556

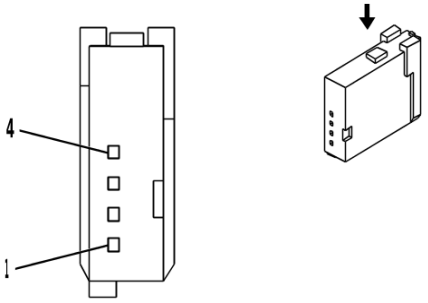
K17 Electronic Brake Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD/YE	442	Primary Fused Battery Positive Voltage 4	III	—

K17 Electronic Brake Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	—	—	—	Not Occupied	—	—
3	0.5	GY/YE	7128	Right Rear Wheel Speed Sensor Control	I	—
4	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	I	—
5	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
6	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
9	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
10	0.5	GY/BN	7065	Right Front Wheel Speed Sensor Control	I	—
11	0.5	YE	872	Right Front Wheel Speed Sensor Signal	I	—
12	—	—	—	Not Occupied	—	—
13	5	BK	2150	Ground 21	III	—
14 - 16	—	—	—	Not Occupied	—	—
17	0.5	L-GN/BN	2087	Multi-axis Acceleration Sensor Supply Voltage	I	—
18 - 19	—	—	—	Not Occupied	—	—
20	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
21	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
22 - 24	—	—	—	Not Occupied	—	—
25	2.5	RD/VT	1640	Secondary Fused Battery Positive Voltage 16	II	—
26 - 27	—	—	—	Not Occupied	—	—
28	0.5	WH/BU	5986	Serial Data Communication Enable	I	—
29	0.5	GY/BK	7127	Left Rear Wheel Speed Sensor Control	I	—
30	0.5	D-BU	884	Left Rear Wheel Speed Sensor Signal	I	—
31 - 34	—	—	—	Not Occupied	—	—
35	0.5	GY/WH	7064	Left Front Wheel Speed Sensor Control	I	—
36	0.5	GY	830	Left Front Wheel Speed Sensor Signal	I	—
37	—	—	—	Not Occupied	—	—
38	2.5	BK	2150	Ground 21	II	—

K18 Compass Module



2831061

Connector Part Information

Harness Type: Headliner
OEM Connector: 13820711
Service Connector: 19300398
Description: 4-Way F 0.64 Series (BK)

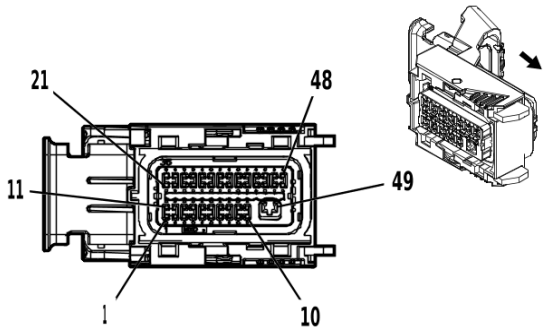
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

K18 Compass Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN	441	Run Ignition 3 Voltage 4	I	—
2	0.5	BK/WH	351	Ground 3	I	—
3	0.35	D-GN	6134	Body Control Module LIN Bus 3	I	—
4	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L8T)



4596458

Connector Part Information

Harness Type: Engine
OEM Connector: 33315785
Service Connector: 19368142
Description: 49-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333308	J-35616-35 (VT)	J-38125-215A
II	19354746	J-35616-64B (LT BU)	J-38125-215A

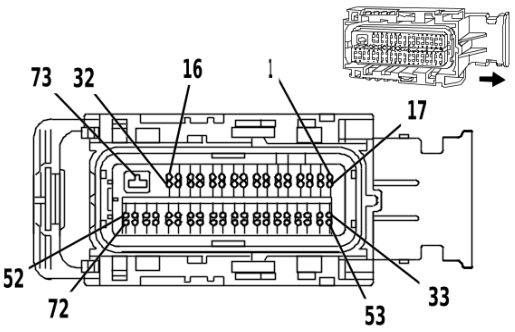
K20 Engine Control Module X1 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	II	—
2	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L8T) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
7	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
8	0.5	BN/WH	419	Check Engine Indicator Control	II	—
9	0.5	YE	5991	Powertrain Relay Coil Control	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	D-BU/GY	636	Ambient Air Temperature Sensor Signal	II	—
13	0.5	D-BU/BN	4498	High Speed GMLAN Serial Data [+] 7	II	—
14	0.5	WH/L-GN	5380	Brake Position Sensor Signal	II	—
15	—	—	—	Not Occupied	—	—
16	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	II	—
17	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
18	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	L-GN/BU	428	EVAP Purge Solenoid Valve Control	II	—
22	—	—	—	Not Occupied	—	—
23	0.5	BK/L-GN	580	Engine Control Sensors Low Reference 2	II	—
24	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	—
25 - 27	—	—	—	Not Occupied	—	—
28	0.5	BN/L-GN	1174	Oil Level Switch Signal	II	—
29	—	—	—	Not Occupied	—	—
30	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/GY	1039	Run/Crank Ignition 1 Voltage 10	II	—
33	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	II	—
34	0.5	RD/WH	140	Secondary Fused Battery Positive Voltage 1	II	—
35	—	—	—	Not Occupied	—	—
36	0.5	YE/BK	625	Starter Enable Relay Control	II	—
37	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	II	—
38	0.5	WH/RD	1164	Accelerator Pedal Position 5 Volt Reference 1	II	—
39	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
40	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	—
41	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	L-GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
45	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
46	—	—	—	Not Occupied	—	—
47	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage 4	II	—
48	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
49	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—

K20 Engine Control Module X2 (L8T)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15499466
Service Connector: 19333090
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (LT BU)	J-38125-215A
II	19368324	J-35616-35 (VT)	J-38125-11A

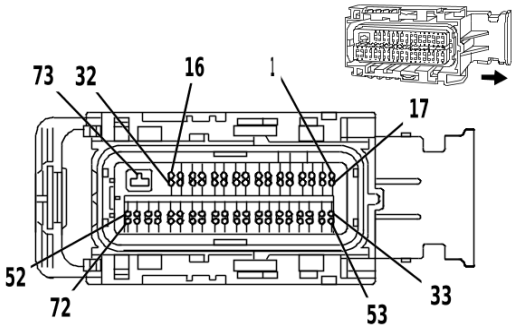
K20 Engine Control Module X2 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/YE	3212	HO2S Heater Low Control Bank 2 Sensor 1	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference 1	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	L-GN/WH	4622	Engine Control Module LIN Bus 2	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	HO2S High Signal Bank 1 Sensor 1	I	—
11	0.5	WH/BK	3111	HO2S Low Signal Bank 1 Sensor 1 (3)	I	—
12	0.5	YE/BU	2124	Ignition Control 4	I	—
13	0.5	BN/BU	2126	Ignition Control 6	I	—
14 - 15	—	—	—	Not Occupied	—	—
16	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
17	0.5	GY/WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	I	—
18 - 25	—	—	—	Not Occupied	—	—
26	0.5	VT/WH	3210	HO2S High Signal Bank 2 Sensor 1	I	—
27	0.5	YE/WH	3211	HO2S Low Signal Bank 2 Sensor 1	I	—
28	0.5	L-GN/BU	2123	Ignition Control 3	I	—
29	0.5	D-BU/GY	2125	Ignition Control 5	I	—
30	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
31 - 32	—	—	—	Not Occupied	—	—
33	0.5	WH/BN	3223	HO2S Heater Low Control Bank 2 Sensor 2	I	—

K20 Engine Control Module X2 (L8T) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
34	—	—	—	Not Occupied	—	—
35	0.5	D-BU	179	Engine Oil Pump Control	I	—
36	—	—	—	Not Occupied	—	—
37	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
38	—	—	—	Not Occupied	—	—
39	0.5	WH/RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—
40 - 45	—	—	—	Not Occupied	—	—
46	0.5	YE/BU	3221	HO2S Low Signal Bank 2 Sensor 2	I	—
47	0.5	VT/L-GN	3220	HO2S High Signal Bank 2 Sensor 2	I	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.75	BK/GY	2303	Knock Sensor 2 Low Reference	I	—
51	0.75	BK/YE	1716	Knock Sensor 1 Low Reference	I	—
52	0.5	BN/WH	582	Throttle Actuator Close Control	I	—
53	0.5	GY/WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	I	—
54 - 58	—	—	—	Not Occupied	—	—
59	0.5	D-BU/RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
60 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH/YE	3121	HO2S Low Signal Bank 1 Sensor 2	I	—
67	0.5	VT/BU	3120	HO2S High Signal Bank 1 Sensor 2	I	—
68 - 69	—	—	—	Not Occupied	—	—
70	0.75	WH/GY	1876	Knock Sensor 2 Signal	I	—
71	0.75	VT/GY	496	Knock Sensor 1 Signal	I	—
72	0.5	YE	581	Throttle Actuator Open Control	I	—
73	3	BK/WH	1551	Ground 15	II	—

K20 Engine Control Module X3 (L8T)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15497996
Service Connector: 19333091
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (LT BU)	J-38125-215A
II	19368324	J-35616-35 (VT)	J-38125-11A

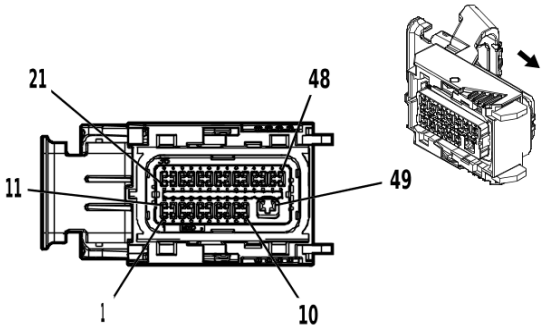
K20 Engine Control Module X3 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
5	0.5	VT/BN	5284	Intake Camshaft Position Actuator Solenoid Valve 1	I	—
6	0.5	VT/L-GN	4320	Selective Catalytic Reduction Power Module Wake-Up Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	YE/VT	5275	Intake Camshaft Position Sensor 1	I	—
9	0.5	GY/BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	I	—
10	0.5	L-GN	6271	Crankshaft Position Sensor Signal	I	—
11	—	—	—	Not Occupied	—	—
12	0.5	D-BU/WH	2122	Ignition Control 2	I	—
13	0.5	VT/WH	2128	Ignition Control 8	I	—
14	0.5	D-BU/WH	225	Generator Turn On Signal	I	—
15	—	—	—	Not Occupied	—	—
16	0.75	YE	7301	High Pressure Fuel Pump High Control	I	—
17 - 18	—	—	—	Not Occupied	—	—
19	0.5	BN/VT	6399	Replicated Transmission Output Speed Signal	I	—
20	—	—	—	Not Occupied	—	—
21	0.5	BK/BN	6753	Camshaft Position Actuator Solenoid Valve W Low Reference	I	—
22 - 23	—	—	—	Not Occupied	—	—
24	0.5	BK/L-GN	5301	Intake Camshaft Position Sensor Low Reference 1	I	—
25	0.5	VT/BU	6270	Crankshaft Position Sensor Voltage	I	—
26	0.5	BK/VT	6272	Crankshaft Position Sensor Low Reference	I	—
27	—	—	—	Not Occupied	—	—
28	0.5	L-GN/GY	2127	Ignition Control 7	I	—
29	0.5	D-BU/VT	2121	Ignition Control 1	I	—
30	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/BK	7300	High Pressure Fuel Pump Low Control	I	—
33 - 35	—	—	—	Not Occupied	—	—
36	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
37	0.5	BK/L-GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
38 - 39	—	—	—	Not Occupied	—	—
40	0.5	BN/BU	357	Oil Temperature Sensor Signal	I	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK/GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—
44	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage 12	I	—

K20 Engine Control Module X3 (L8T) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
45	0.75	L-GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	I	—
46	0.75	GY/BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	I	—
47	0.75	WH/L-GN	4805	Direct Fuel Injector High Voltage Control Cylinder 5	I	—
48	0.75	VT/L-GN	4806	Direct Fuel Injector High Voltage Control Cylinder 6	I	—
49	0.75	D-BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	I	—
50	0.75	YE/GY	4807	Direct Fuel Injector High Voltage Control Cylinder 7	I	—
51	0.75	GY	4808	Direct Fuel Injector High Voltage Control Cylinder 8	I	—
52	0.75	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	I	—
53 - 54	—	—	—	Not Occupied	—	—
55	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference 2	I	—
56	0.5	D-BU/WH	3630	Throttle Position Sensor SENT 1 Signal	I	—
57	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
58	0.5	L-GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
59 - 60	—	—	—	Not Occupied	—	—
61	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	I	—
62	—	—	—	Not Occupied	—	—
63	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—
64	0.5	GY	23	Generator Field Duty Cycle Signal	I	—
65	0.75	L-GN/GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	I	—
66	0.75	D-BU/WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	I	—
67	0.75	L-GN/WH	4905	Direct Fuel Injector High Voltage Supply Cylinder 5	I	—
68	0.75	VT/GY	4906	Direct Fuel Injector High Voltage Supply Cylinder 6	I	—
69	0.75	D-BU/GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	I	—
70	0.75	WH/YE	4907	Direct Fuel Injector High Voltage Supply Cylinder 7	I	—
71	0.75	GY/WH	4908	Direct Fuel Injector High Voltage Supply Cylinder 8	I	—
72	0.75	BN/WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	I	—
73	3	BK/WH	1551	Ground 15	II	—

K20 Engine Control Module X1 (LV1)



4596458

Connector Part Information

Harness Type: Engine
OEM Connector: 33315785
Service Connector: 19368142
Description: 49-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333308	J-35616-35 (VT)	J-38125-215A
II	19354746	J-35616-64B (LT BU)	J-38125-215A

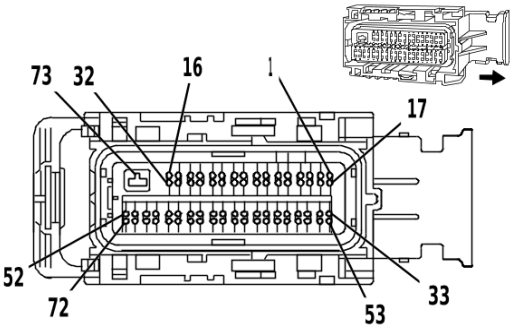
K20 Engine Control Module X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
7	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
8	0.5	BN/WH	419	Check Engine Indicator Control	II	—
9	0.5	YE	5991	Powertrain Relay Coil Control	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	D-BU/GY	636	Ambient Air Temperature Sensor Signal	II	—
13	0.5	D-BU/BN	4498	High Speed GMLAN Serial Data [+] 7	II	—
14	0.5	WH/L-GN	5380	Brake Position Sensor Signal	II	—
15 - 16	—	—	—	Not Occupied	—	—
17	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
18	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	L-GN/BU	428	EVAP Purge Solenoid Valve Control	II	—
22	—	—	—	Not Occupied	—	—
23	0.5	BK/L-GN	580	Engine Control Sensors Low Reference 2	II	—
24	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	—
25 - 26	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
27	0.5	L-GN/YE	3337	Transmission Internal Mode Switch Mode Control Y	II	—
28	0.5	BN/L-GN	1174	Oil Level Switch Signal	II	—
29	—	—	—	Not Occupied	—	—
30	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/GY	1039	Run/Crank Ignition 1 Voltage 10	II	—
33	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	II	—
34	0.5	RD/WH	140	Secondary Fused Battery Positive Voltage 1	II	—
35	—	—	—	Not Occupied	—	—
36	0.5	YE/BK	625	Starter Enable Relay Control	II	—
37	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	II	—
38	0.5	WH/RD	1164	Accelerator Pedal Position 5 Volt Reference 1	II	—
39	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
40	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	—
41	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	L-GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
45	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
46	—	—	—	Not Occupied	—	—
47	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage 4	II	—
48	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
49	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—

K20 Engine Control Module X2 (LV1)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15499466
Service Connector: 19333090
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578937	J-35616-35 (VT)	J-38125-11A
II	19354746	J-35616-64B (LT BU)	J-38125-215A

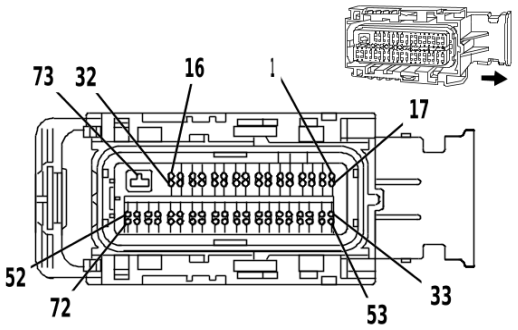
K20 Engine Control Module X2 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/YE	3212	HO2S Heater Low Control Bank 2 Sensor 1	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference 1	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	L-GN/WH	4622	Engine Control Module LIN Bus 2	II	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	HO2S High Signal Bank 1 Sensor 1	II	—
11	0.5	WH/BK	3111	HO2S Low Signal Bank 1 Sensor 1 (3)	II	—
12	—	—	—	Not Occupied	—	—
13	0.5	L-GN/BU	2123	Ignition Control 3	II	—
14 - 15	—	—	—	Not Occupied	—	—
16	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
17	0.5	GY/WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	II	—
18 - 25	—	—	—	Not Occupied	—	—
26	0.5	VT/WH	3210	HO2S High Signal Bank 2 Sensor 1	II	—
27	0.5	YE/WH	3211	HO2S Low Signal Bank 2 Sensor 1	II	—
28	—	—	—	Not Occupied	—	—
29	0.5	D-BU/WH	2122	Ignition Control 2	II	—
30	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	II	—
31 - 32	—	—	—	Not Occupied	—	—
33	0.5	WH/BN	3223	HO2S Heater Low Control Bank 2 Sensor 2	II	—
34 - 36	—	—	—	Not Occupied	—	—
37	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	II	—
38	—	—	—	Not Occupied	—	—
39	0.5	WH/RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	II	—
40 - 45	—	—	—	Not Occupied	—	—
46	0.5	YE/BU	3221	HO2S Low Signal Bank 2 Sensor 2	II	—
47	0.5	VT/L-GN	3220	HO2S High Signal Bank 2 Sensor 2	II	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.75	BK/GY	2303	Knock Sensor 2 Low Reference	II	—
51	0.75	BK/YE	1716	Knock Sensor 1 Low Reference	II	—
52	0.5	BN/WH	582	Throttle Actuator Close Control	II	—
53	0.5	GY/WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	II	—
54 - 58	—	—	—	Not Occupied	—	—
59	0.5	D-BU/RD	460	Engine Control Sensors 5 Volt Reference 1	II	—
60 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH/YE	3121	HO2S Low Signal Bank 1 Sensor 2	II	—
67	0.5	VT/BU	3120	HO2S High Signal Bank 1 Sensor 2	II	—
68 - 69	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
70	0.75	WH/GY	1876	Knock Sensor 2 Signal	II	—
71	0.75	VT/GY	496	Knock Sensor 1 Signal	II	—
72	0.5	YE	581	Throttle Actuator Open Control	II	—
73	3	BK/WH	1551	Ground 15	I	—

K20 Engine Control Module X3 (LV1)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15497996
Service Connector: 19333091
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578937	J-35616-35 (VT)	J-38125-11A
II	19354746	J-35616-64B (LT BU)	J-38125-215A

K20 Engine Control Module X3 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
5	0.5	VT/BN	5284	Intake Camshaft Position Actuator Solenoid Valve 1	II	—
6	0.5	VT/L-GN	4320	Selective Catalytic Reduction Power Module Wake-Up Signal	II	—
7	—	—	—	Not Occupied	—	—
8	0.5	YE/VT	5275	Intake Camshaft Position Sensor 1	II	—
9	0.5	GY/BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	II	—
10	0.5	L-GN	6271	Crankshaft Position Sensor Signal	II	—
11	—	—	—	Not Occupied	—	—
12	0.5	YE/BU	2124	Ignition Control 4	II	—
13	0.5	BN/BU	2126	Ignition Control 6	II	—

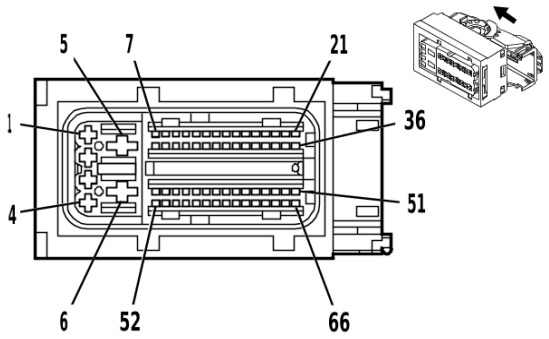
K20 Engine Control Module X3 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
14	0.5	D-BU/WH	225	Generator Turn On Signal	II	—
15	—	—	—	Not Occupied	—	—
16	0.75	YE	7301	High Pressure Fuel Pump High Control	II	—
17 - 20	—	—	—	Not Occupied	—	—
21	0.5	BK/BN	6753	Camshaft Position Actuator Solenoid Valve W Low Reference	II	—
22 - 23	—	—	—	Not Occupied	—	—
24	0.5	BK/L-GN	5301	Intake Camshaft Position Sensor Low Reference 1	II	—
25	0.5	VT/BU	6270	Crankshaft Position Sensor Voltage	II	—
26	0.5	BK/VT	6272	Crankshaft Position Sensor Low Reference	II	—
27	—	—	—	Not Occupied	—	—
28	0.5	D-BU/GY	2125	Ignition Control 5	II	—
29	0.5	D-BU/VT	2121	Ignition Control 1	II	—
30	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/BK	7300	High Pressure Fuel Pump Low Control	II	—
33 - 35	—	—	—	Not Occupied	—	—
36	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	II	—
37	0.5	BK/L-GN	469	Manifold Absolute Pressure Sensor Low Reference	II	—
38 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK/GY	626	Engine Control Vehicle Sensors Low Reference 1	II	—
44	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage 12	II	—
45 - 46	—	—	—	Not Occupied	—	—
47	0.75	D-BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	II	—
48	0.75	L-GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	II	—
49	0.75	GY/BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	II	—
50	0.75	WH/L-GN	4805	Direct Fuel Injector High Voltage Control Cylinder 5	II	—
51	0.75	VT/L-GN	4806	Direct Fuel Injector High Voltage Control Cylinder 6	II	—
52	0.75	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	II	—
53 - 54	—	—	—	Not Occupied	—	—
55	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference 2	II	—
56	0.5	D-BU/WH	3630	Throttle Position Sensor SENT 1 Signal	II	—
57	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	II	—
58	0.5	L-GN/WH	432	Manifold Absolute Pressure Sensor Signal	II	—
59 - 60	—	—	—	Not Occupied	—	—
61	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	II	—
62	—	—	—	Not Occupied	—	—
63	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	II	—
64	0.5	GY	23	Generator Field Duty Cycle Signal	II	—

K20 Engine Control Module X3 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
65 - 66	—	—	—	Not Occupied	—	—
67	0.75	D-BU/GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	II	—
68	0.75	L-GN/GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	II	—
69	0.75	D-BU/WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	II	—
70	0.75	L-GN/WH	4905	Direct Fuel Injector High Voltage Supply Cylinder 5	II	—
71	0.75	VT/GY	4906	Direct Fuel Injector High Voltage Supply Cylinder 6	II	—
72	0.75	BN/WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	II	—
73	3	BK/WH	1551	Ground 15	I	—

K20 Engine Control Module X1 (LWN)



2498868

Connector Part Information

Harness Type: Engine
OEM Connector: 35059716
Service Connector: 19370822
Description: 66-Way F 0.64 MTS-B, 2.8 ATS, 6.3 Ducon Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579752	J-35616-4A (PU)	J-38125-215A
II	13584448	J-35616-64B (LT BU)	J-38125-215A
III	13584530	J-35616-4A (PU)	J-38125-215A
IV	19369848	J-35616-64B (LT BU)	J-38125-215A

K20 Engine Control Module X1 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	VT/GY	1439	Run/Crank Ignition 1 Voltage 14	III	—
2	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

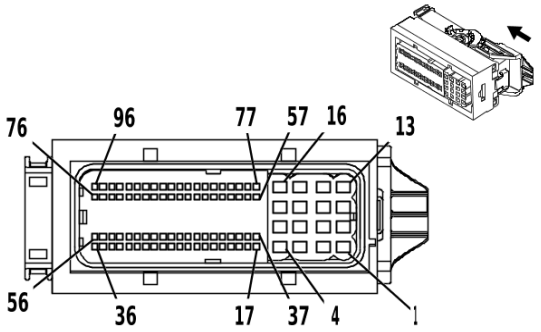
K20 Engine Control Module X1 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	0.5	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—
4	0.5	RD/BN	440	Secondary Fused Battery Positive Voltage 4	I	—
5	6	RD/YE	2	Battery Positive Voltage	IV	—
6	6	BK/WH	451	Ground 4	IV	—
7	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	II	—
8 - 10	—	—	—	Not Occupied	—	—
11	0.5	D-BU/YE	6861	Water In Fuel Sensor Signal	II	—
12	—	—	—	Not Occupied	—	—
13	0.5	WH/RD	1164	Accelerator Pedal Position 5 Volt Reference 1	II	—
14	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
15	0.5	L-GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
16	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
17	0.5	WH/BK	2366	Cooling Fan Speed Control Signal	II	—
18	0.5	BN/WH	419	Check Engine Indicator Control	II	—
19	0.5	L-GN/BN	507	Wait To Start Indicator Control	II	—
20	—	—	—	Not Occupied	—	—
21	0.5	YE	2928	Fuel Metering Solenoid Valve High Control	II	—
22	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage 4	II	—
23	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
24	—	—	—	Not Occupied	—	—
25	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	II	—
26	0.5	D-BU/VT	2364	Cooling Fan Speed Signal	II	—
27	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	—
28	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
34 - 35	—	—	—	Not Occupied	—	—
36	0.5	BN/BK	2929	Fuel Metering Solenoid Valve Low Control	II	—
37 - 38	—	—	—	Not Occupied	—	—
39	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	II	—
40	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK/BN	5360	Brake Apply Sensor Low Reference	II	—
44	0.5	WH	5359	Brake Apply Sensor Voltage Reference	II	—
45	0.5	WH/BU	6289	Intake Air Temperature Sensor Signal	II	—
46	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	II	—
47	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
48	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	II	—
49	—	—	—	Not Occupied	—	—
50	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	II	—
51	0.5	YE	5991	Powertrain Relay Coil Control	II	—
52 - 53	—	—	—	Not Occupied	—	—
54	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	II	—
55	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—

K20 Engine Control Module X1 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
56 - 58	—	—	—	Not Occupied	—	—
59	0.5	D-BU/YE	5361	Brake Apply Sensor Signal	II	—
60	0.5	BK/VT	2760	Intake Air Temperature Sensor Low Reference	II	—
61 - 63	—	—	—	Not Occupied	—	—
64	0.75	VT/BN	2927	Exhaust Aftertreatment Fuel Injector Low Control	II	—
65	—	—	—	Not Occupied	—	—
66	0.5	YE/BK	625	Starter Enable Relay Control	II	—

K20 Engine Control Module X2 (LWN)



4115094

Connector Part Information

Harness Type: Engine
OEM Connector: 35059745
Service Connector: 19370825
Description: 96-Way F 0.64 MTS-B, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584448	J-35616-64B (LT BU)	J-38125-215A
II	13584530	J-35616-4A (PU)	J-38125-215A

K20 Engine Control Module X2 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	D-BU/GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	II	—
2	1.5	L-GN/GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	II	—
3	1.5	D-BU/WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	II	—
4	1.5	BN/WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	II	—
5	1.5	D-BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	II	—

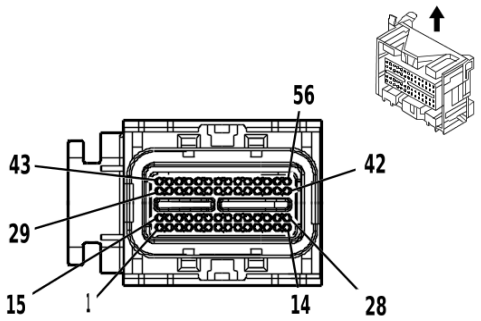
K20 Engine Control Module X2 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
6	1.5	L-GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	II	—
7	1.5	GY/BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	II	—
8	1.5	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	II	—
9 - 12	—	—	—	Not Occupied	—	—
13	2	GY/BN	1582	Glow Plug 2 Control	II	—
14	2	GY/YE	1584	Glow Plug 4 Control	II	—
15	2	GY/L-GN	1583	Glow Plug 3 Control	II	—
16	2	GY/BU	1581	Glow Plug 1 Control	II	—
17	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
18	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
19	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—
20 - 25	—	—	—	Not Occupied	—	—
26	0.5	BN	7348	Intake Air Temperature Sensor 2 Signal	I	—
27	0.5	BN/GY	7072	Fuel Temperature Sensor 1 Signal	I	—
28 - 29	—	—	—	Not Occupied	—	—
30	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	I	—
31	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
32	0.5	L-GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	—
33	—	—	—	Not Occupied	—	—
34	0.75	D-BU/WH	225	Generator Turn On Signal	I	—
35 - 37	—	—	—	Not Occupied	—	—
38	0.5	BN/YE	2161	Fuel Rail Pressure Sensor 2 Signal	I	—
39	—	—	—	Not Occupied	—	—
40	0.5	GY/BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	I	—
41	0.5	YE/VT	5275	Intake Camshaft Position Sensor 1	I	—
42	0.5	BK/L-GN	5301	Intake Camshaft Position Sensor Low Reference 1	I	—
43	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference 2	I	—
44	0.5	D-BU/WH	3630	Throttle Position Sensor SENT 1 Signal	I	—
45	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
46	—	—	—	Not Occupied	—	—
47	0.5	BN/WH	7073	Fuel Temperature Sensor 1 Low Reference	I	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—
51	0.5	YE/BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—
52	0.5	YE/BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	—
53 - 55	—	—	—	Not Occupied	—	—
56	0.75	BN/BU	2926	Exhaust Aftertreatment Fuel Injector High Control	I	—
57	0.5	BK/BN	2753	Exhaust Gas Recirculation Valve Position Sensor Low Reference	I	—

K20 Engine Control Module X2 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
58	0.5	BN/WH	5763	Exhaust Gas Recirculation Position Signal	I	—
59	0.5	D-BU/RD	5047	Exhaust Gas Recirculation Valve Position Sensor 5V Reference 1	I	—
60	0.5	BK/BN	6141	Cooling Fan Speed Sensor Low Reference	I	—
61	0.5	L-GN/YE	3337	Transmission Internal Mode Switch Mode Control Y	I	—
62	0.5	GY/RD	2365	Cooling Fan Speed Sensor 5V Reference	I	—
63	0.5	WH/RD	596	5 Volt Reference 2	I	—
64	—	—	—	Not Occupied	—	—
65	0.5	BK/GY	3927	Transmission Internal Mode Switch Feedback Signal	I	—
66	—	—	—	Not Occupied	—	—
67	0.75	GY	23	Generator Field Duty Cycle Signal	I	—
68	—	—	—	Not Occupied	—	—
69	0.5	BK/L-GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
70	0.5	VT/BK	5746	Exhaust Gas Recirculation Valve Low Control	I	—
71	0.5	WH/VT	5764	Exhaust Gas Recirculation Valve High Control	I	—
72	0.5	GY/BU	5930	Turbocharger Vane Position Control Solenoid Valve Circuit High Signal	I	—
73	0.5	WH/BK	5931	Turbocharger Vane Position Control Solenoid Valve Circuit Low Signal	I	—
74 - 75	—	—	—	Not Occupied	—	—
76	0.5	BK/YE	2834	Fuel Rail Pressure Solenoid Valve Low Reference	I	—
77 - 79	—	—	—	Not Occupied	—	—
80	0.5	BK/L-GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
81	0.5	L-GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
82	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
83	0.5	VT/BU	6270	Crankshaft Position Sensor Voltage	I	—
84	0.5	L-GN	6271	Crankshaft Position Sensor Signal	I	—
85	0.5	BK/VT	6272	Crankshaft Position Sensor Low Reference	I	—
86	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	—
87	—	—	—	Not Occupied	—	—
88	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—
89	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
90	0.5	BN/WH	582	Throttle Actuator Close Control	I	—
91	0.5	YE	581	Throttle Actuator Open Control	I	—
92 - 93	—	—	—	Not Occupied	—	—
94	0.5	YE/BU	3231	Exhaust Gas Recirculation Cooler Bypass Solenoid Valve Control	I	—
95	0.5	GY/BU	3230	Exhaust Gas Recirculation Cooler Bypass Solenoid Valve Control	I	—
96	0.5	D-BU/WH	2530	Fuel Rail Pressure Solenoid Valve Control	I	—

K20 Engine Control Module X3 (LWN)



784851

Connector Part Information

Harness Type: Engine
OEM Connector: 13510837
Service Connector: 88988373
Description: 56-Way F 0.64 Series, Sealed (BU with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (LT BU)	J-38125-213

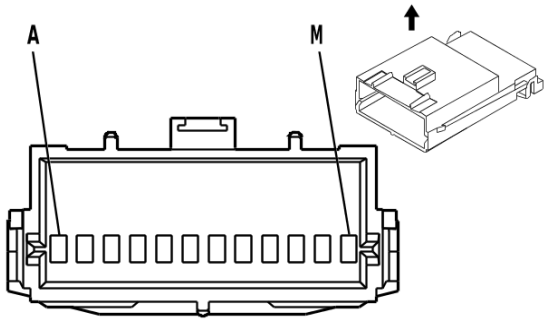
K20 Engine Control Module X3 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	3100	Diesel Exhaust Fluid Dosing Valve Low Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK/L-GN	6281	Fuel Level Sensor Low Reference	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
7	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
8	0.5	BK/YE	407	Sensor Low Reference	I	—
9	0.5	BK/VT	3661	Exhaust Gas Temperature Sensor 5 Low Reference	I	—
10	0.5	BK/BU	6274	Exhaust Gas Recirculation Temperature Sensor Low Reference	I	—
11	0.5	BK/GY	3659	Exhaust Gas Temperature Sensor 4 Low Reference	I	—
12	0.5	BK/L-GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—
13	0.5	BK/BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	—
14	0.5	D-BU/WH	5277	Exhaust Gas Temperature Sensor 1 Signal	I	—
15	0.5	BN	3099	Diesel Exhaust Fluid Dosing Valve High Control	I	—
16 - 17	—	—	—	Not Occupied	—	—
18	0.5	D-BU/VT	1589	Primary Fuel Level Sensor Signal 2	I	—
19	0.5	BK/YE	6275	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	I	—

K20 Engine Control Module X3 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	0.5	YE/L-GN	3236	Exhaust Gas Recirculation Temperature Sensor 2 Signal	I	—
21	0.5	GY/RD	5928	Turbocharger Vane Position Sensor Voltage Reference	I	—
22	0.5	L-GN/BK	735	Ambient Air Temperature Sensor Signal 2	I	—
23	0.5	D-BU/GY	3660	Exhaust Gas Temperature Sensor 5 Signal	I	—
24	0.5	WH/BN	3237	Exhaust Gas Recirculation Temperature Sensor Signal	I	—
25	0.5	VT/BN	3658	Exhaust Gas Temperature Sensor 4 Signal	I	—
26	0.5	GY/L-GN	5378	Exhaust Gas Temperature Sensor 3 Signal	I	—
27	0.5	BK/BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	—
28	0.5	D-BU/ L-GN	5377	Exhaust Gas Temperature Sensor 2 Signal	I	—
29	—	—	—	Not Occupied	—	—
30	0.5	YE/BU	1497	Positive Crankcase Ventilation Heater Control	I	—
31	—	—	—	Not Occupied	—	—
32	0.5	BN/GY	4008	Humidity Sensor Signal	I	—
33	0.5	BK/BN	5929	Turbocharger Vane Position Sensor Low Reference	I	—
34 - 42	—	—	—	Not Occupied	—	—
43	0.5	L-GN/BU	3889	Powertrain Sensor Bus Relay Control	I	—
44	—	—	—	Not Occupied	—	—
45	0.5	D-BU	3017	Fuel Heater Relay 1 Control	I	—
46	0.5	VT/YE	5947	Turbocharger Vane Position Sensor Signal	I	—
47 - 49	—	—	—	Not Occupied	—	—
50	0.5	WH/RD	6054	Exhaust Pressure Sensor 1 5V Reference	I	—
51	0.5	D-BU	6053	Exhaust Pressure Sensor 1 Signal	I	—
52	0.5	BK/YE	6055	Exhaust Pressure Sensor 1 Low Reference	I	—
53 - 56	—	—	—	Not Occupied	—	—

K33A HVAC Control Module - Auxiliary



328486

Connector Part Information

Harness Type: Headliner
OEM Connector: 12040747
Service Connector: 12101938
Description: 12-Way P/C Edgeboard Standard Series (BK)

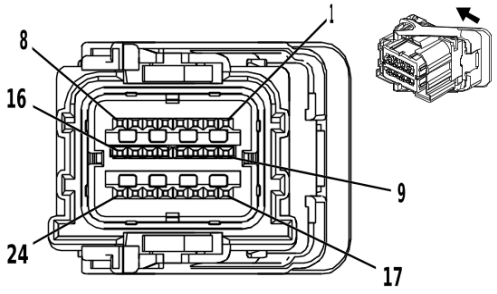
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19330178	J-35616-4A (PU)	J-38125-12A

K33A HVAC Control Module - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	PU	5260	Auxiliary HVAC Front Temperature Signal	I	—
B	0.35	OG	2775	Rear Air Temperature Door Actuator Control	I	—
C	0.5	BN	5263	Auxiliary HVAC Rear Temperature Signal	I	—
D	0.5	PU/WH	5264	Auxiliary HVAC Rear Mode Signal	I	—
E	0.35	TN	5261	Auxiliary HVAC Front Mode Signal	I	—
F	0.35	GY	2599	Rear Mode Door Actuator Signal	I	—
G	—	—	—	Not Occupied	—	—
H	0.35	BK	1850	Ground 18	I	—
J	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
K	—	—	—	Not Occupied	—	—
L	0.5	PK/BK	5265	Auxiliary HVAC Rear Control Signal	I	—
M	0.35	YE	5262	Auxiliary HVAC Rear Controls Enable Signal	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1



3240106

Connector Part Information

Harness Type: Body
OEM Connector: 13859806
Service Connector: 13579314
Description: 24-Way F 0.64 Series, Sealed (YE)

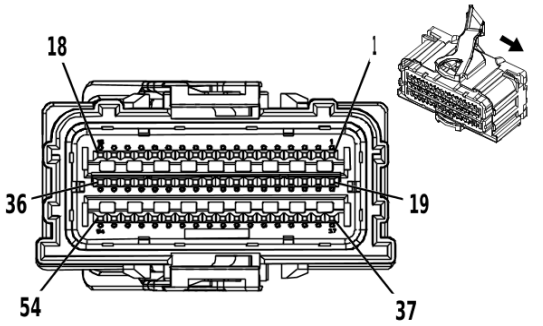
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19328872	J-35616-64B (LT BU)	J-38125-215A
II	19367373	J-35616-64B (LT BU)	J-38125-215A

K36 Inflatable Restraint Sensing and Diagnostic Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BN	3020	Steering Wheel Air Bag Stage 1 Low Control	II	—
4	0.5	TN	3021	Steering Wheel Air Bag Stage 1 High Control	II	—
5	0.5	YE	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	II	—
6	0.5	OG	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	II	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.5	RD/WH	3440	Secondary Fused Battery Positive Voltage 34	II	—
10 - 12	—	—	—	Not Occupied	—	—
13	0.5	PK	353	Passenger Supplemental Inflatable Restraint Suppression Indicator Control	II	—
14	0.5	TN/BK	371	Passenger Supplemental Inflatable Restraint Disable Switch Signal	II	—
15	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
16	—	—	—	Not Occupied	—	—
17	0.35	PK	1139	Run/Crank Ignition 1 Voltage 11	I	—
18	—	—	—	Not Occupied	—	—
19	0.5	BK/WH	1751	Ground 17	II	—
20 - 24	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2



2817420

Connector Part Information

Harness Type: Body
OEM Connector: 13914358
Service Connector: 19303770
Description: 54-Way F 0.64 Series, Sealed (YE)

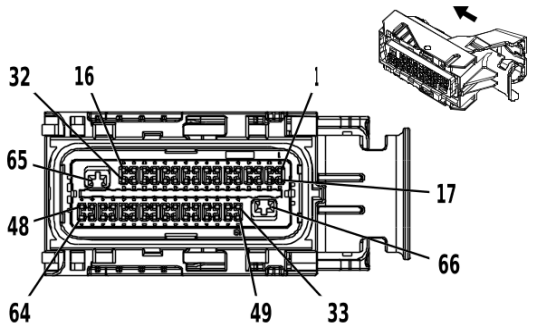
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19367373	J-35616-64B (LT BU)	J-38125-215A

K36 Inflatable Restraint Sensing and Diagnostic Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 10	—	—	—	Not Occupied	—	—
11	0.5	TN/BK	7016	Right Rear Roof Rail Air Bag Low Control	I	—
12	0.5	L-BU	7015	Right Rear Roof Rail Air Bag High Control	I	—
13	0.5	BN	2137	Left Front Seat Side Air Bag High Control	I	—
14	0.5	YE/BK	2138	Left Front Seat Side Air Bag Low Control	I	—
15	0.5	L-GN	2136	Right Front Seat Side Air Bag Low Control	I	—
16	0.5	TN/WH	2135	Right Front Seat Side Air Bag High Control	I	—
17	0.5	PU/WH	5019	Left Front Roof Rail Air Bag High Control	I	—
18	0.5	PK	5020	Left Front Roof Rail Air Bag Low Control	I	—
19	0.5	WH	2132	Left Front Side Impact Sensor Signal	I	—
20	0.5	PU/WH	6628	Left Front Side Impact Sensor Low Reference	I	—
21	0.5	WH/BK	6629	Right Front Side Impact Sensor Low Reference	I	—
22	0.5	D-GN	2134	Right Front Side Impact Sensor Signal	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.5	D-BU/WH	6619	Front Middle Impact Discriminating Sensor Low Reference	I	—
26	0.5	BN/WH	6618	Front Middle Impact Discriminating Sensor Signal	I	—
27	0.5	D-GN/WH	6620	Left Middle Side Impact Sensor Signal	I	—
28	0.5	GY/BK	6621	Left Middle Side Impact Sensor Low Reference	I	—
29	0.5	L-GN/WH	6625	Right Middle Side Impact Sensor Low Reference	I	—
30	0.5	L-BU/BK	6624	Right Middle Side Impact Sensor Signal	I	—
31 - 36	—	—	—	Not Occupied	—	—
37	0.5	TN/WH	2118	Driver Seat Belt Pretensioner High Control	I	—
38	0.5	OG/BK	2119	Driver Seat Belt Pretensioner Low Control	I	—
39	0.5	OG	2117	Passenger Seat Belt Pretensioner Low Control	I	—
40	0.5	L-GN	2116	Passenger Seat Belt Pretensioner High Control	I	—
41	0.5	TN/WH	238	Driver Seat Belt Switch Signal	I	—
42	—	—	—	Not Occupied	—	—
43	0.5	PK	5057	Seat Position Switch Low Reference	I	—
44 - 52	—	—	—	Not Occupied	—	—
53	0.5	YE/BK	5021	Right Front Roof Rail Air Bag High Control	I	—
54	0.5	WH/BK	5022	Right Front Roof Rail Air Bag Low Control	I	—

K71 Transmission Control Module



3621452

Connector Part Information

Harness Type: Engine
OEM Connector: 13965710
Service Connector: 19329822
Description: 66-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579769	J-35616-35 (VT)	J-38125-11A
II	19354746	J-35616-64B (LT BU)	J-38125-213
III	19354746	J-35616-64B (LT BU)	J-38125-215A

K71 Transmission Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BU	4507	Transmission Clutch H Control	II	—
	0.5	WH/BU	4507	Transmission Clutch H Control	III	—
2	0.5	BU	6401	Clutch Solenoid Valve B Control	III	—
	0.5	BU	6401	Clutch Solenoid Valve B Control	II	—
3	0.5	GN/WH	1530	Transmission Line Pressure Control Solenoid Valve Control	III	—
	0.5	GY/GN	6403	Clutch Solenoid Valve D Control	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	YE/GN	4170	Transmission Output Shaft Speed Sensor Circuit 9V Reference	III	—
	0.5	YE/GN	4170	Transmission Output Shaft Speed Sensor Circuit 9V Reference	II	—
8	0.5	YE/BU	4171	Transmission Input Shaft Speed Sensor Circuit 9V Reference	III	—
	0.5	YE/BU	4171	Transmission Input Shaft Speed Sensor Circuit 9V Reference	II	—
9 - 12	—	—	—	Not Occupied	—	—
13	0.5	GN/VT	4510	Transmission Intermediate Speed Signal	III	—
	0.5	GN/VT	4510	Transmission Intermediate Speed Signal	II	—
14	0.5	GY/BU	6358	Output Speed Signal	III	—
	0.5	GY/BU	6358	Output Speed Signal	II	—
15	0.5	GN/YE	6353	Input Speed Signal	III	—
	0.5	GN/YE	6353	Input Speed Signal	II	—

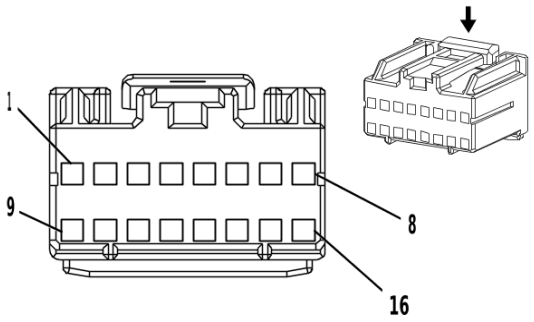
K71 Transmission Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
16	—	—	—	Not Occupied	—	—
17	0.5	WH	4508	Transmission Clutch G Control	III	—
	0.5	WH	4508	Transmission Clutch G Control	II	—
18	0.5	BN	6400	Clutch Solenoid Valve A Control	III	—
	0.5	BN	6400	Clutch Solenoid Valve A Control	II	—
19	0.5	GY	6402	Clutch Solenoid Valve C Control	II	—
	0.5	GY	6402	Clutch Solenoid Valve C Control	III	—
20	0.5	VT/WH	422	Torque Converter Clutch Solenoid Valve Control	III	—
	0.5	YE/BN	6404	Clutch Solenoid Valve E Control	II	—
21	0.5	GN/WH	6380	Torque Converter Clutch Enable Solenoid Valve A Control	III	—
	0.5	GN/WH	6380	Torque Converter Clutch Enable Solenoid Valve A Control	II	—
22	0.5	YE/BN	6210	Torque Converter Clutch Enable Solenoid Valve B Control	II	—
	0.5	YE/BN	6210	Torque Converter Clutch Enable Solenoid Valve B Control	III	—
23 - 27	—	—	—	Not Occupied	—	—
28	0.5	BK/BN	586	Transmission Fluid Temperature Sensor Low Reference	II	—
	0.5	BK/BN	586	Transmission Fluid Temperature Sensor Low Reference	III	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	GN/GY	6387	Transmission High Side Driver 1 Control	III	—
	0.5	GN/GY	6387	Transmission High Side Driver 1 Control	II	—
34	—	—	—	Not Occupied	—	—
35	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage 21	III	—
	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage 21	II	—
36	—	—	—	Not Occupied	—	—
37	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	III	—
	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
38	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	III	—
39 - 48	—	—	—	Not Occupied	—	—
49	0.75	GY/BN	6388	Transmission High Side Driver 2 Control	III	—
	0.75	GY/BN	6388	Transmission High Side Driver 2 Control	II	—
50	—	—	—	Not Occupied	—	—
51	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	III	—
	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	II	—
52	—	—	—	Not Occupied	—	—
53	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	III	—
	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
54	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	III	—
	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
55 - 62	—	—	—	Not Occupied	—	—
63	0.5	BN/WH	585	Transmission Fluid Temperature Sensor Signal	III	—
	0.5	BN/WH	585	Transmission Fluid Temperature Sensor Signal	II	—
64	0.5	BU/WH	3338	Transmission Internal Mode Switch Mode Control X	II	—
	0.5	BU/WH	3338	Transmission Internal Mode Switch Mode Control X	III	—

K71 Transmission Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
65	0.75	BK/WH	1551	Ground 15	I	—
66	0.75	RD/GN	1840	Secondary Fused Battery Positive Voltage 18	I	—

K73 Telematics Communication Interface Control Module X1



1471689

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15431362
Service Connector: 15306351
Description: 16-Way F 100A Micro-Pack Series (NA)

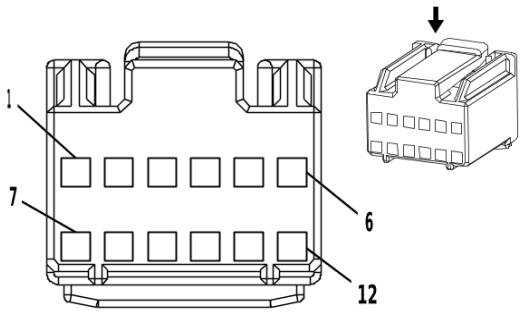
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575548	J-35616-16 (LT GN)	J-38125-559

K73 Telematics Communication Interface Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-GN	5060	Low Speed GMLAN Serial Data	I	—
2	0.8	BN/WH	2517	Keypad Red LED Control	I	—
3	0.8	YE/BK	2516	Keypad Green LED Control	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.8	L-GN/BK	2515	Keypad Control	I	—
7	0.8	BK/WH	351	Ground 3	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
11	0.8	D-GN/WH	2514	Keypad Signal	I	—
12	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
13 - 14	—	—	—	Not Occupied	—	—
15	0.8	RD/WH	3240	Secondary Fused Battery Positive Voltage 32	I	—
16	—	—	—	Not Occupied	—	—

K73 Telematics Communication Interface Control Module X2



1471691

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15431365
Service Connector: 88952886
Description: 12-Way F 100A Micro-Pack Series (NA)

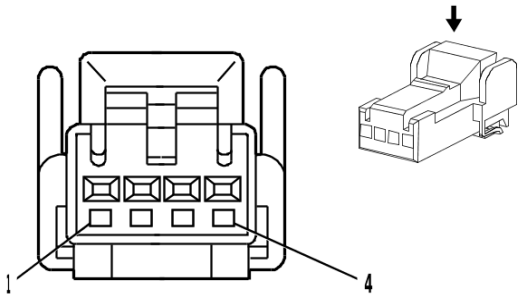
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575546	J-35616-16 (LT GN)	J-38125-559
II	13575548	J-35616-16 (LT GN)	J-38125-559

K73 Telematics Communication Interface Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8 0.35	D-BU D-BU	658 658	Cellular Telephone Voice Signal Cellular Telephone Voice Signal	II I	(UE1)-(UI8+UL5) -UE1
2	0.8 0.35	L-BU/BK L-BU/BK	659 659	Cellular Telephone Voice Low Reference Cellular Telephone Voice Low Reference	II I	(UE1)-(UI8+UL5) -UE1
3	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
4	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
5	0.35	Bare	1792	Low Reference 7	I	—
6	0.35	PK	5149	Voice Recognition Audio Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.8 0.35	Bare Bare	1792 1782	Low Reference 7 Low Reference 6	II I	(UE1)-(UI8+UL5) -UE1
9	0.8	GY	655	Cellular Telephone Microphone Signal	II	—
10	0.8	D-GN	654	Cellular Telephone Microphone Low Reference	II	—
11	—	—	—	Not Occupied	—	—
12	0.35	PK/BK	5152	Voice Recognition Audio [-] Control	I	—

K77 Remote Control Door Lock Receiver



1673483

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15462684
Service Connector: 13585474
Description: 4-Way F IL-AG5 Series (GN)

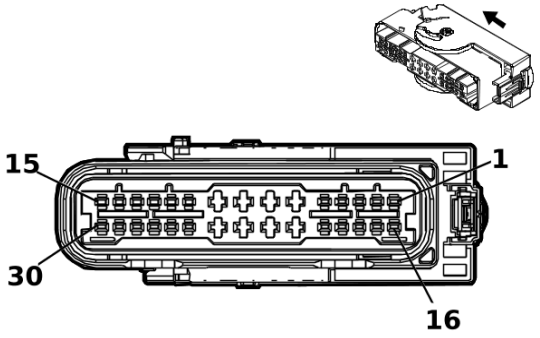
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

K77 Remote Control Door Lock Receiver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	5340	Secondary Fused Battery Positive Voltage 53	I	—
2	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BK/WH	351	Ground 3	I	—

K111 Fuel Pump Driver Control Module



3240109

Connector Part Information

Harness Type: Chassis
OEM Connector: 33386317

Service Connector: 19354086
Description: 30-Way F 1.5, 2.8 Series, Sealed (BK)

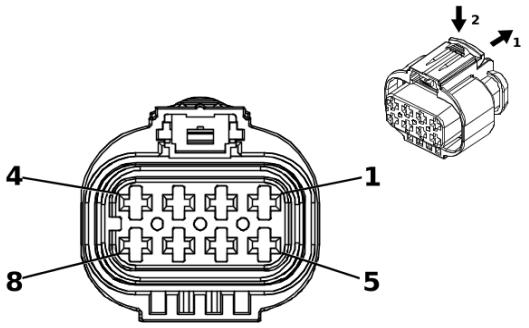
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300440	J-35616-4A (PU)	J-38125-557
II	19329958	J-35616-2A (GY)	J-38125-11A

K111 Fuel Pump Driver Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 6	—	—	—	Not Occupied	—	—
7	2.5	RD/VT	1940	Secondary Fused Battery Positive Voltage 19	I	—
8	2.5	GY	120	Fuel Pump Control	I	—
9	2.5	YE/GY	4137	Fuel Pump Supply Voltage Phase 2	I	—
10	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	II	—
11	0.5	BU/WH	890	Fuel Tank Pressure Sensor Signal	II	—
12	0.5	BN/RD	7445	Fuel Pressure Sensor 5V Reference	II	—
13	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal 2	II	—
14	—	—	—	Not Occupied	—	—
15	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	II	—
16	0.5	VT/GN	4320	Selective Catalytic Reduction Power Module Wake-Up Signal	II	—
17	0.5	VT	2739	Run/Crank Ignition 1 Voltage 27	II	—
18	0.5	GN/GY	465	Fuel Pump Primary Relay Control	II	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	WH	1310	EVAP Vent Solenoid Valve Control	I	—
22	2.5	BK	2150	Ground 21	I	—
23	0.5	BK	7444	Fuel Pump Assembly Shield Ground	I	—
24	2.5	WH/BN	4138	Fuel Pump Supply Voltage Phase 3	I	—
25	0.5	BK/BN	6284	Fuel Tank Pressure Sensor Low Reference	II	—
26	0.5	BU/WH	7446	Fuel Pressure Sensor Signal	II	—
27	0.5	BK/YE	7447	Fuel Pressure Sensor Low Reference	II	—
28	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	II	—
29	—	—	—	Not Occupied	—	—
30	0.5 0.5	WH BU/BN	4498 4498	High Speed GMLAN Serial Data [+] 7 High Speed GMLAN Serial Data [+] 7	II II	— —

K115 Reductant Control Module



3749581

Connector Part Information

Harness Type: Chassis
OEM Connector: 15530717
Service Connector: 19370092
Description: 8-Way F 2.8 Series, Sealed (BK)

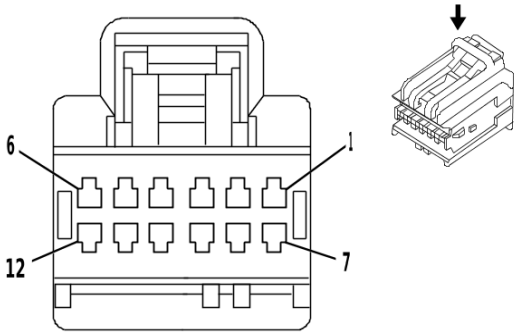
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required
II	Not Required	J-35616-4A (PU)	No Tool Required

K115 Reductant Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/L-GN	2440	Secondary Fused Battery Positive Voltage 24	II	—
2	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
3	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
4	1.5	BK	150	Ground 1	II	—
5	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	II	—
6	0.5	WH	7494	High Speed GMLAN Serial Data [-] 3	I	—
7	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data [+] 3	I	—
8	2.5	D-BU	3921	—	II	—

K182 Parking Assist Control Module X1



1664569

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13784026
Service Connector: 13525987
Description: 12-Way F 0.64 Series (BK)

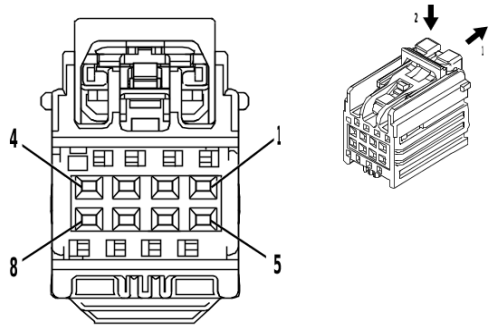
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575549	J-35616-16 (LT GN)	J-38125-559
II	13575550	J-35616-16 (LT GN)	J-38125-559

K182 Parking Assist Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	840	Secondary Fused Battery Positive Voltage 8	II	—
2 - 5	—	—	—	Not Occupied	—	—
6	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
7	0.5	BK/WH	351	Ground 3	II	—
8 - 12	—	—	—	Not Occupied	—	—

K182 Parking Assist Control Module X2



4280711

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33183559
Service Connector: 19355209
Description: 8-Way F YESC Kaizen Series (GY)

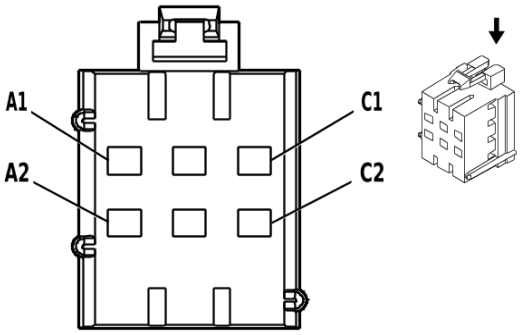
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

K182 Parking Assist Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	2378	Right Rear Outer Parking Assist Sensor Signal	I	—
2	0.5	YE/WH	2377	Right Rear Middle Parking Assist Sensor Signal	I	—
3	0.5	YE/BU	2376	Left Rear Middle Parking Assist Sensor Signal	I	—
4	0.5	BN/WH	2374	Object Sensor Supply Voltage	I	—
5	0.5	YE	2375	Left Rear Outer Parking Assist Sensor Signal	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

KR32B Blower Motor High Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series (GY)

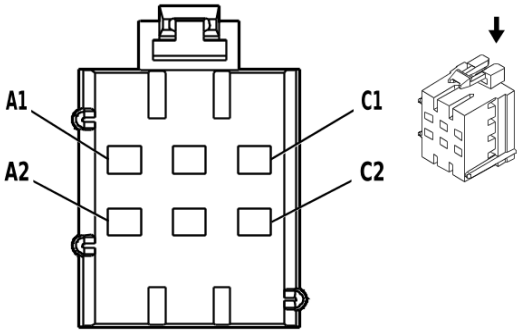
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

KR32B Blower Motor High Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
A2	5	YE	1172	Auxiliary Blower Motor Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

KR32C Blower Motor Low Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series (GY)

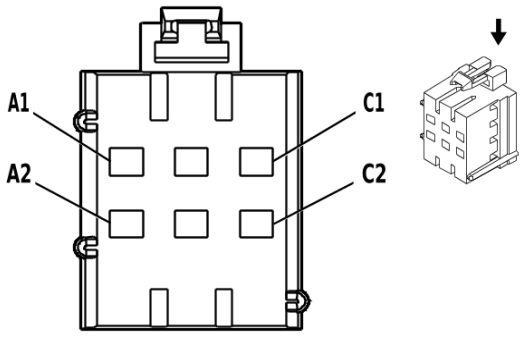
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

KR32C Blower Motor Low Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	D-BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
A2	3	YE	1176	Auxiliary Blower Motor Low Speed Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

KR32D Blower Motor Medium Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series (GY)

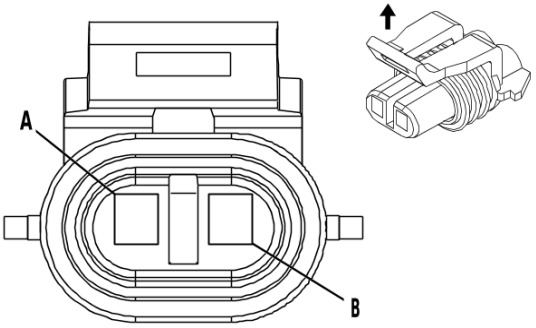
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

KR32D Blower Motor Medium Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
A2	3	L-BU	1072	Auxiliary Blower Motor Medium Speed Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD/WH	1740	Secondary Fused Battery Positive Voltage 17	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

KR81 Auxiliary Battery Relay 1 X1



635009

Connector Part Information

Harness Type: Engine
OEM Connector: 12052641

Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series (BK)

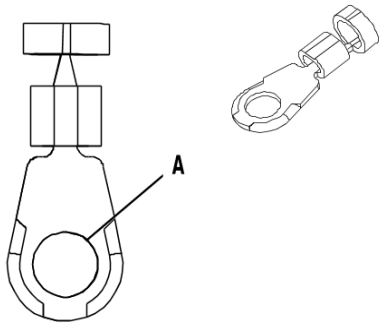
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

KR81 Auxiliary Battery Relay 1 X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	RD/WH	4892	Auxiliary Battery Relay Control	I	—
B	0.75	BK/WH	1551	Ground 15	I	—

KR81 Auxiliary Battery Relay 1 X2



3385519

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12146365
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

KR81 Auxiliary Battery Relay 1 X3 (-TP2)

—

Connector Part Information

Harness Type: Accessory
OEM Connector: 12103504
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

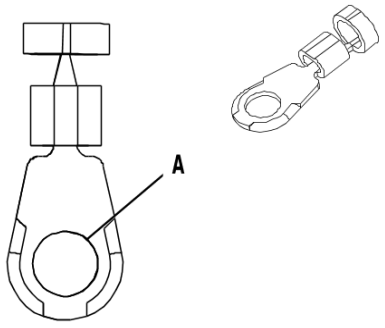
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X3 (-TP2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD	102	Battery Positive Voltage 1	I	—

KR81 Auxiliary Battery Relay 1 X3 (TP2)



3385519

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 12146365
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

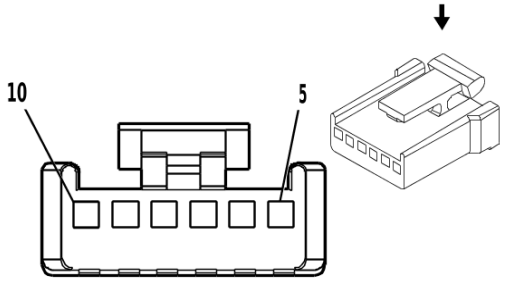
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X3 (TP2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

M6 Air Temperature Door Actuator



281207

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12040953
Service Connector: 12102632
Description: 6-Way F 100 Micro-Pack Series (BK)

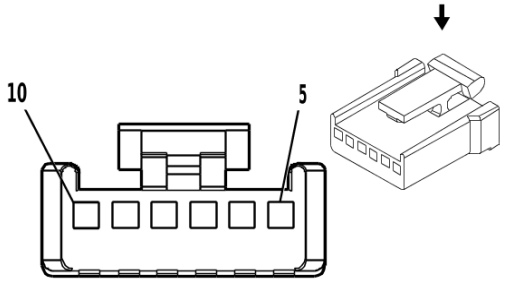
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-6 (BN)	No Tool Required

M6 Air Temperature Door Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	1	BK	550	Ground 5	I	—
8	0.8	L-BU	733	Air Temperature Door Position Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

M6B Air Temperature Door Actuator - Auxiliary



281207

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12040953

Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 100 Micro-Pack Series (BK)

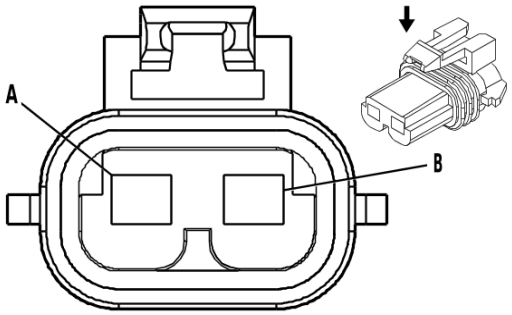
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-6 (BN)	No Tool Required

M6B Air Temperature Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	BK	850	Ground 8	I	—
8	0.35	OG	2775	Rear Air Temperature Door Actuator Control	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

M8B Blower Motor - Auxiliary



684799

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12077900
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

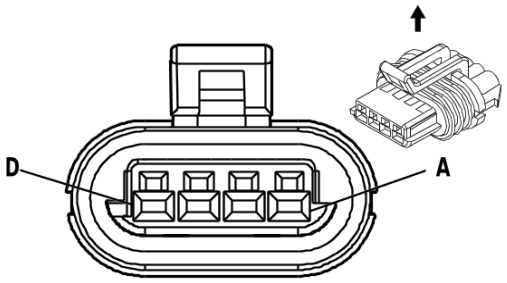
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M8B Blower Motor - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	BK	850	Ground 8	I	—
B	5	YE	1172	Auxiliary Blower Motor Control	I	—

M13 Door Latch Assembly - Rear Cargo X1



655858

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 15336846
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BU)

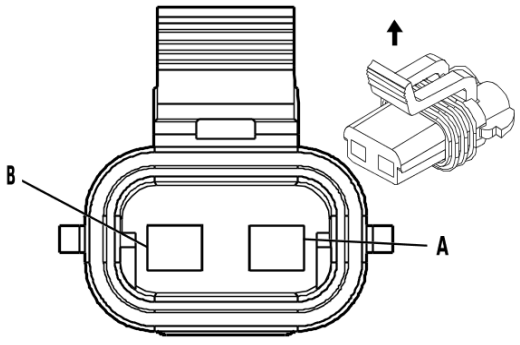
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

M13 Door Latch Assembly - Rear Cargo X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK/WH	1051	Ground 10	I	—
B	—	—	—	Not Occupied	—	—
C	0.35	PK/BK	1303	Liftgate Ajar Switch Signal 1	I	—
D	0.35	L-GN	5926	Rear Body Opening Open Switch Signal	I	—

M13 Door Latch Assembly - Rear Cargo X2



68721

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 15300027

Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

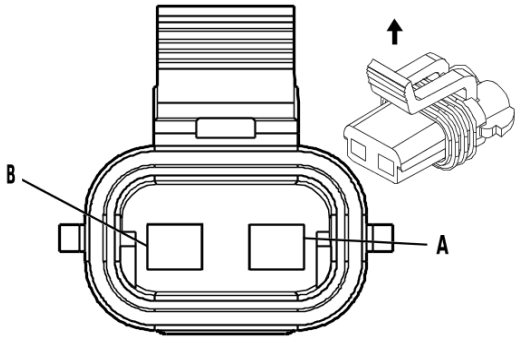
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M13 Door Latch Assembly - Rear Cargo X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	TN/BK	1095	Right Rear Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

M14RR Door Lock Actuator - Right Rear (E24)



68721

Connector Part Information

Harness Type: Sliding Door
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

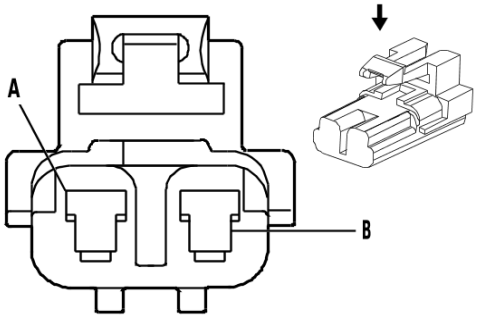
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M14RR Door Lock Actuator - Right Rear (E24)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

M14RR Door Lock Actuator - Right Rear (YA2)



62488

Connector Part Information

Harness Type: Sliding Door
OEM Connector: 12084957
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series (BK)

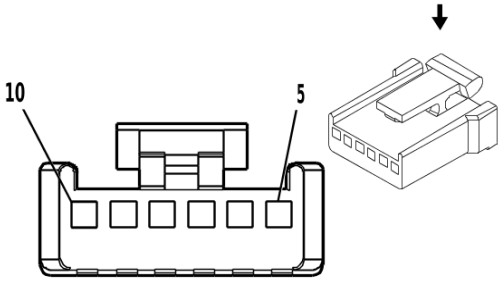
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M14RR Door Lock Actuator - Right Rear (YA2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	GY	295	Door Lock Actuator Lock Control	I	—
B	0.8	TN	294	Door Lock Actuator Unlock Control	I	—

M37B Mode Door Actuator - Auxiliary



281207

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12040953
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 100 Micro-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-6 (BN)	No Tool Required

M37B Mode Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	BK	850	Ground 8	I	—
8	0.35	GY	2599	Rear Mode Door Actuator Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage 3	I	—

M64 Starter Motor X1 (L8T+TP3)

GRAPHIC PENDING

5525555

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 35268571
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

M64 Starter Motor X1 (L8T+TP3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	(L8T+TP3)-5SP
	13	RD	1	Unfused Battery Positive Voltage	I	L8T+TP3

M64 Starter Motor X1 (L8T-TP3)

GRAPHIC PENDING

5525555

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 35205441
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

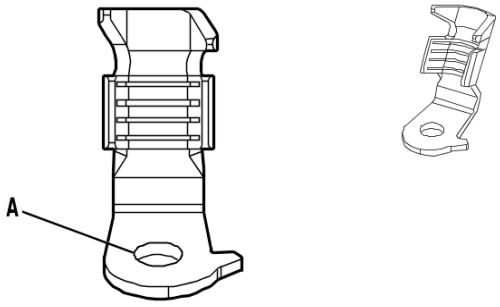
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

M64 Starter Motor X1 (L8T-TP3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

M64 Starter Motor X1 (LV1)



4937583

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 35116268
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

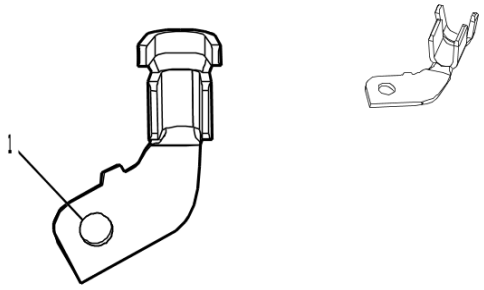
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

M64 Starter Motor X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—
	32	RD	1	Unfused Battery Positive Voltage		—

M64 Starter Motor X1 (LWN)



4892115

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 33253169
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

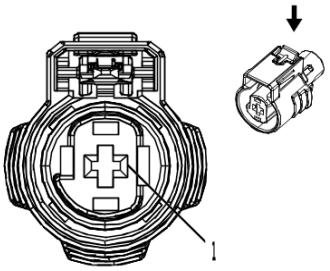
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required

M64 Starter Motor X1 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	32	RD	1	Unfused Battery Positive Voltage	I	—

M64 Starter Motor X2



2717134

Connector Part Information

Harness Type: Engine
OEM Connector: 15526411
Service Connector: 19300471
Description: 1-Way F 2.8 MCP Series, Sealed (BK)

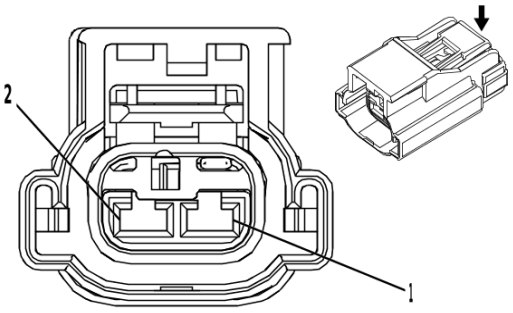
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M64 Starter Motor X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	PU	6	Starter Solenoid Actuator Crank Ignition Voltage	I	—

M74D Window Motor - Driver



3372003

Connector Part Information

Harness Type: Driver Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

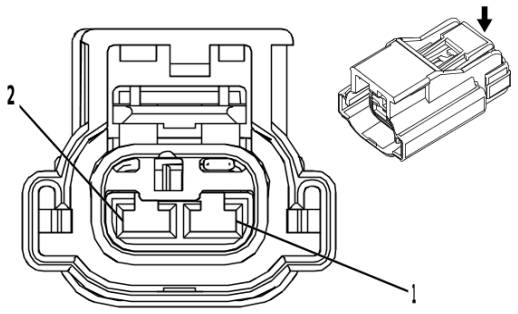
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M74D Window Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	D-BU	164	Left Front Window Motor Up Control	I	—
2	3	BN	165	Window Motor Left Front Down Control	I	—

M74P Window Motor - Passenger



3372003

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

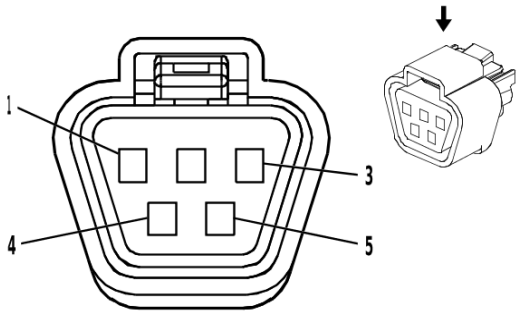
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M74P Window Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	D-BU	666	Right Front Window Motor Up Control	I	—
2	3	BN	667	Right Front Window Motor Down Control	I	—

M75 Windshield Wiper Motor



1715213

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15316488
Service Connector: 13587179
Description: 5-Way F 090 Series, Sealed (BK)

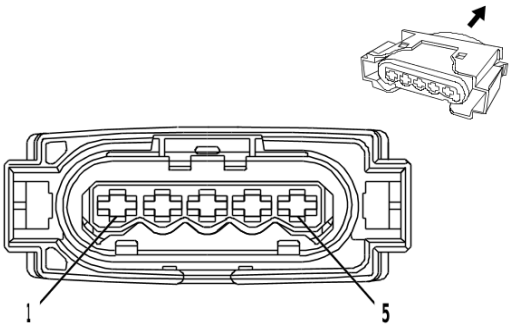
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-18 (BK)	No Tool Required

M75 Windshield Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	D-GN	95	Windshield Wiper Motor Low Speed Control	II	—
2	0.35	BK/WH	351	Ground 3	I	—
3	0.35	YE	196	Windshield Wiper Motor Park Switch Signal	I	—
4	2	PU	92	Windshield Wiper Motor High Speed Control	II	—
5	2	BK	1250	Ground 12	II	—

M103 Turbocharger Vane Position Actuator



3794114

Connector Part Information

Harness Type: Engine
OEM Connector: 10890285
Service Connector: 19368141
Description: 5-Way F 2.8 SLK Series (BK)

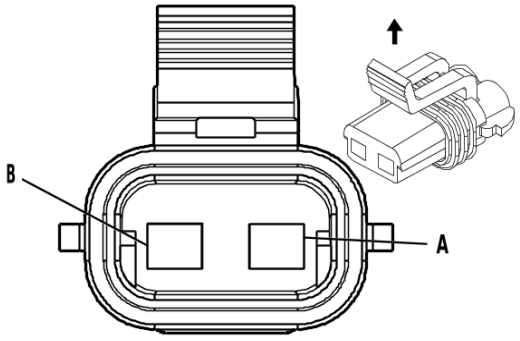
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

M103 Turbocharger Vane Position Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	5930	Turbocharger Vane Position Control Solenoid Valve Circuit High Signal	I	—
2	0.5	WH/BK	5931	Turbocharger Vane Position Control Solenoid Valve Circuit Low Signal	I	—
3	0.5	BK/BN	5929	Turbocharger Vane Position Sensor Low Reference	I	—
4	0.5	VT/YE	5947	Turbocharger Vane Position Sensor Signal	I	—
5	0.5	GY/RD	5928	Turbocharger Vane Position Sensor Voltage Reference	I	—

P3 Backup Alarm



68721

Connector Part Information

Harness Type: Chassis
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

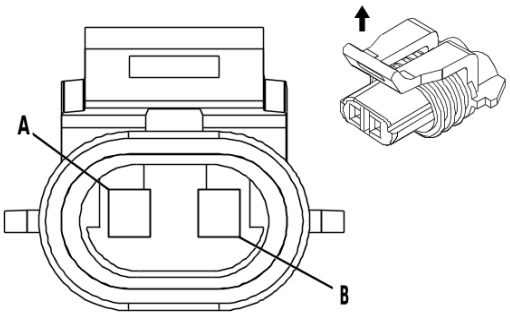
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

P3 Backup Alarm

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	L-GN	1624	Trailer Backup Lamp Control	I	—
B	1	BK	150	Ground 1	I	—

P13 Horn Assembly



537107

Connector Part Information

Harness Type: Engine
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

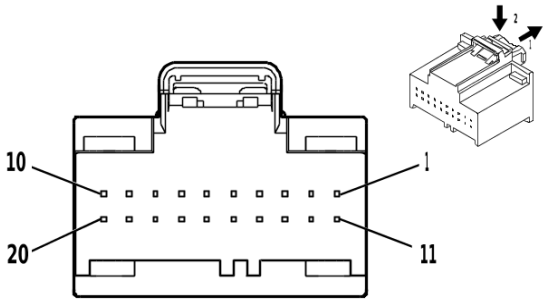
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P13 Horn Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	BK	1250	Ground 12	I	—
B	1	BN/GY	29	Horn Control	I	—

P16 Instrument Cluster



5112891

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35160140
Service Connector: 13525990
Description: 20-Way F 0.64 Series (BK)

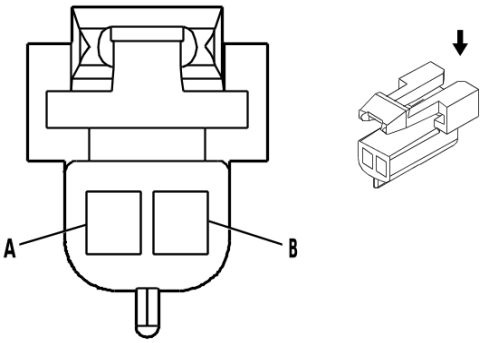
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (LT BU)	J-38125-215A
II	13575867	J-35616-64B (LT BU)	J-38125-215A

P16 Instrument Cluster

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN	5060	Low Speed GMLAN Serial Data	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	L-GN	1478	Coolant Level Switch Signal	I	—
4	0.5	BN/WH	419	Check Engine Indicator Control	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	GY/YE	3885	Forward Collision Alert LED Control	II	—
7	0.35	BK/WH	351	Ground 3	II	—
8	0.35	WH/L-GN	3535	Reflected LED Display Dimming Control	II	—
9	0.5	L-GN/BN	507	Wait To Start Indicator Control	I	—
10	0.5	D-BU/GY	636	Ambient Air Temperature Sensor Signal	I	—
11	0.5	BK/BU	61	Ambient Air Temperature Sensor Low Reference	I	—
12	0.35	D-BU	2307	Passenger Air Bag On Indicator Control	II	—
13	0.35	D-GN	2308	Passenger Air Bag Off Indicator Control	II	—
14	0.5	TN/WH	33	Brake Warning Indicator Control	I	—
15	0.75	L-GN/GY	333	Brake Fluid Level Switch Signal	I	—
16	0.35	PK	893	Driver Information Center Select Menu Switch Signal	II	—
17	0.35	D-GN/WH	1358	Driver Information Center Switch Signal	II	—
18	0.35	BN	897	Driver Information Center Switch Low Reference	II	—
19	0.35	PK	1639	Run/Crank Ignition 1 Voltage 16	II	—
20	0.35	RD/WH	2840	Secondary Fused Battery Positive Voltage 28	II	—

P19AG Speaker - Left Front Door



280768

Connector Part Information

Harness Type: Driver Door
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

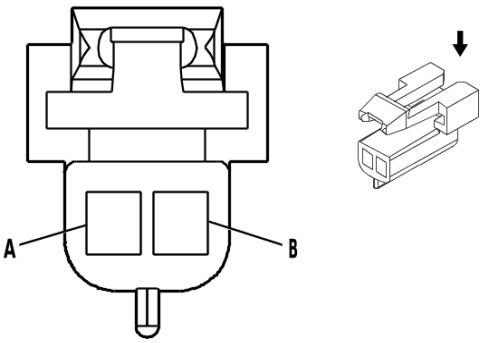
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19AG Speaker - Left Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	L-BU	1957	Left Front Midrange Speaker [-] Control	I	—
B	0.8	D-BU	1857	Left Front Midrange Speaker [+] Control	I	—

P19AH Speaker - Right Front Door



280768

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 12052832

Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

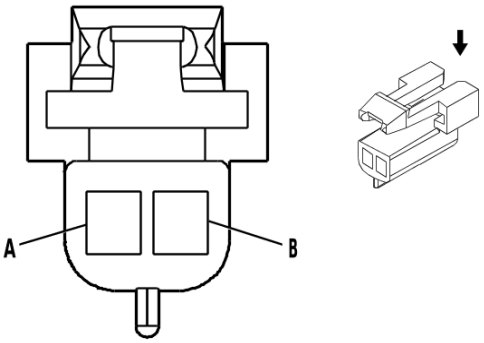
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19AH Speaker - Right Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-GN	1953	Right Front Midrange Speaker [-] Control	I	—
B	0.8	OG	1853	Right Front Midrange Speaker [+] Control	I	—

P19F Speaker - Left Rear Cargo Door



280768

Connector Part Information

Harness Type: Left Rear Cargo Door
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

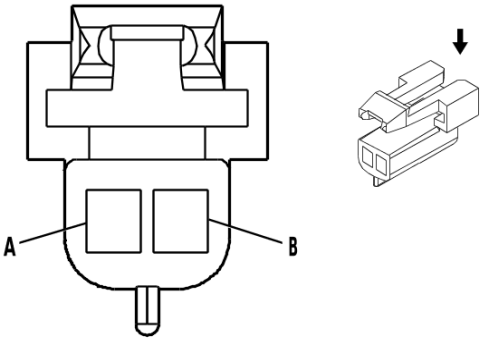
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19F Speaker - Left Rear Cargo Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	1959	Left Rear Midrange Speaker [-] Control	I	—
B	1	TN	1859	Left Rear Midrange Speaker [+] Control	I	—

P19LR Speaker - Left Rear Roof



280768

Connector Part Information

Harness Type: Rear Speaker
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

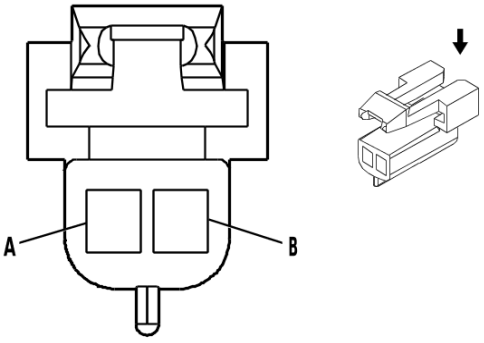
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19LR Speaker - Left Rear Roof

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	1959	Left Rear Midrange Speaker [-] Control	I	—
B	1	TN	1859	Left Rear Midrange Speaker [+] Control	I	—

P19RR Speaker - Right Rear Roof



280768

Connector Part Information

Harness Type: Rear Speaker
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

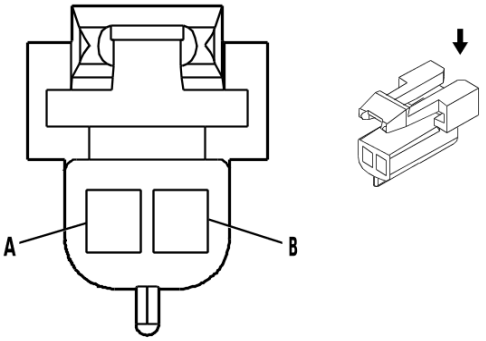
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19RR Speaker - Right Rear Roof

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	OG	1955	Right Rear Midrange Speaker [-] Control	I	—
B	1	TN	1855	Right Rear Midrange Speaker [+] Control	I	—

P19T Speaker - Right Rear Cargo Door



280768

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

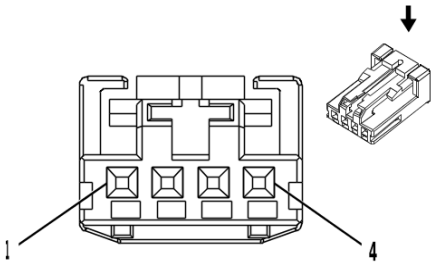
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

P19T Speaker - Right Rear Cargo Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	OG	1955	Right Rear Midrange Speaker [-] Control	I	—
B	1	TN	1855	Right Rear Midrange Speaker [+] Control	I	—

P43 Collision Alert Indicators



2717162

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13969166
Service Connector: 13587297
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

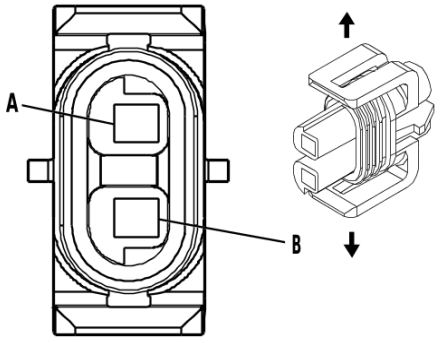
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

P43 Collision Alert Indicators

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BK	1639	Run/Crank Ignition 1 Voltage 16	I	—
2	0.35	GY/YE	3885	Forward Collision Alert LED Control	I	—
3	0.35	WH/L-GN	3535	Reflected LED Display Dimming Control	I	—
4	0.5	BK/WH	2151	Ground 21	I	—

Q2 A/C Compressor Clutch (-LWN)



684852

Connector Part Information

Harness Type: Engine
OEM Connector: 12162017

Service Connector: 12101937
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

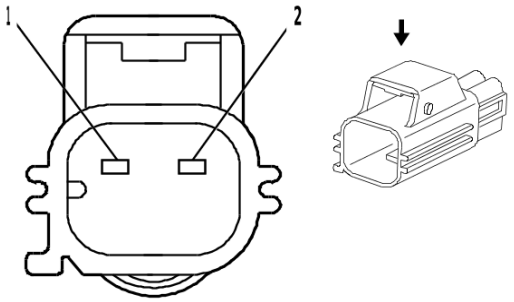
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

Q2 A/C Compressor Clutch (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BK	1250	Ground 12	I	—
B	0.5	BN/L-GN	59	A/C Compressor Clutch Control	I	—

Q2 A/C Compressor Clutch (LWN)



897985

Connector Part Information

Harness Type: Engine
OEM Connector: 15342400
Service Connector: 88953303
Description: 2-Way M YESC Weather Pack Series (BK)

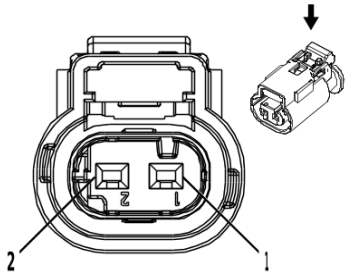
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required

Q2 A/C Compressor Clutch (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/L-GN	59	A/C Compressor Clutch Control	I	—
2	0.75	BK	1250	Ground 12	I	—

Q12 Evaporative Emission Purge Solenoid Valve



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

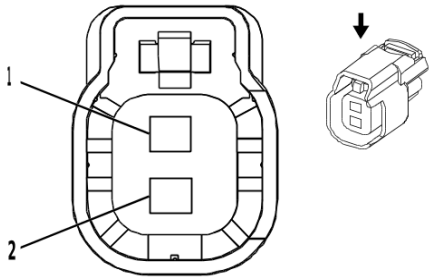
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

Q12 Evaporative Emission Purge Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/WH	1939	Run/Crank Ignition 1 Voltage 19	I	—
2	0.5	L-GN/BU	428	EVAP Purge Solenoid Valve Control	I	—

Q13 Evaporative Emission Vent Solenoid Valve



2422378

Connector Part Information

Harness Type: Chassis
OEM Connector: 13771883
Service Connector: 13579002
Description: 2-Way F 1.5 Series, Sealed (BK)

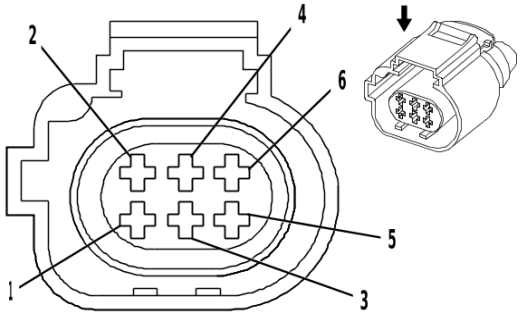
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

Q13 Evaporative Emission Vent Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1310	EVAP Vent Solenoid Valve Control	I	—
2	0.5	RD/L-GN	40	Secondary Fused Battery Positive Voltage	I	—

Q14 Exhaust Gas Recirculation Valve



2216905

Connector Part Information

Harness Type: Engine
OEM Connector: 10888948
Service Connector: 19368732
Description: 6-Way F 1.6 Micro-Timer Series, Sealed (BN)

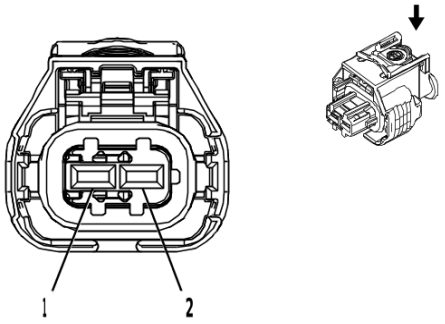
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

Q14 Exhaust Gas Recirculation Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/VT	5764	Exhaust Gas Recirculation Valve High Control	I	—
2	0.5	BN/WH	5763	Exhaust Gas Recirculation Position Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	BK/BN	2753	Exhaust Gas Recirculation Valve Position Sensor Low Reference	I	—
5	0.5	VT/BK	5746	Exhaust Gas Recirculation Valve Low Control	I	—
6	0.5	D-BU/RD	5047	Exhaust Gas Recirculation Valve Position Sensor 5V Reference 1	I	—

Q17A Fuel Injector 1



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 15546417
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

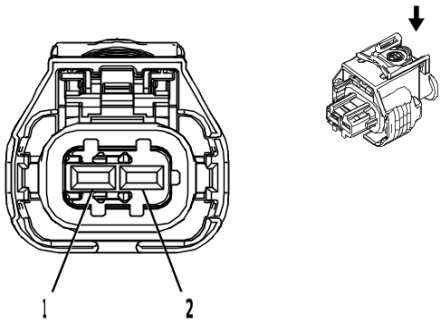
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q17A Fuel Injector 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BN/WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	I	—
2	1.5	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	I	—

Q17B Fuel Injector 2



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 15546417
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

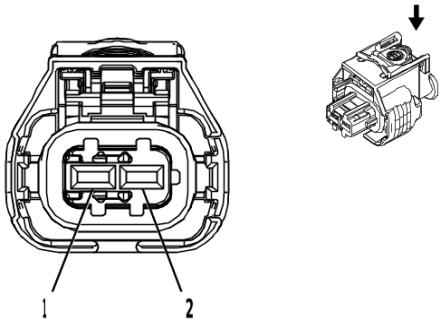
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q17B Fuel Injector 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	D-BU/GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	I	—
2	1.5	D-BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	I	—

Q17C Fuel Injector 3



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 15546417
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

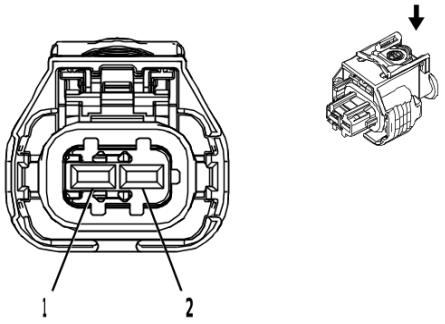
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q17C Fuel Injector 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	I	—
2	1.5	L-GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	I	—

Q17D Fuel Injector 4



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 15546417
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

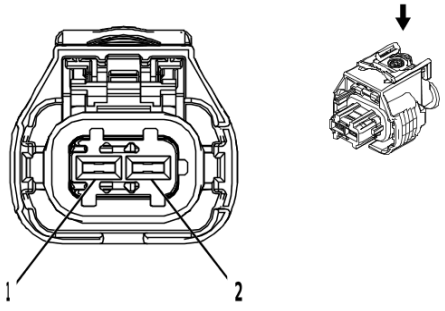
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q17D Fuel Injector 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	D-BU/WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	I	—
2	1.5	GY/BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	I	—

Q18A Fuel Pressure Regulator 1



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

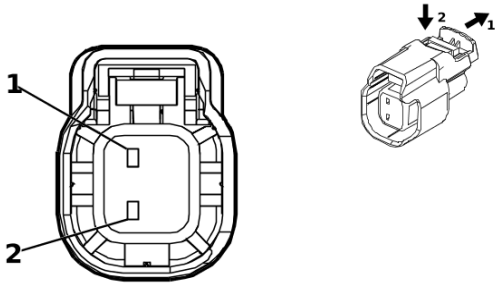
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q18A Fuel Pressure Regulator 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	2928	Fuel Metering Solenoid Valve High Control	I	—
2	0.5	BN/BK	2929	Fuel Metering Solenoid Valve Low Control	I	—

Q18B Fuel Pressure Regulator 2



3028817

Connector Part Information

Harness Type: Engine
OEM Connector: 13946568
Service Connector: 19352404
Description: 2-Way F 1.5 Series, Sealed (BK)

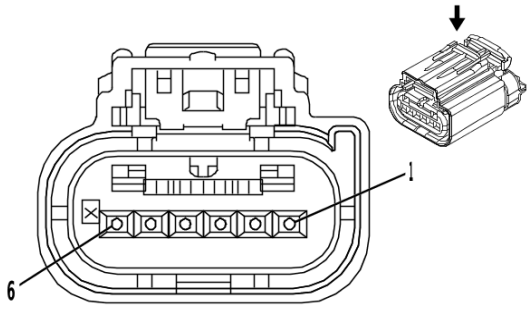
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

Q18B Fuel Pressure Regulator 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/WH	2530	Fuel Rail Pressure Solenoid Valve Control	I	—
2	0.5	BK/YE	2834	Fuel Rail Pressure Solenoid Valve Low Reference	I	—

Q20 Intake Air Flow Valve



2482433

Connector Part Information

Harness Type: Engine
OEM Connector: 13699991
Service Connector: 19352911
Description: 6-Way F 0.64 GET Series, Sealed (BK)

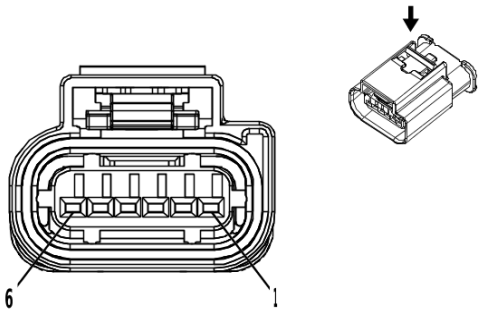
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

Q20 Intake Air Flow Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Open Control	I	—
2	0.5	BN/WH	582	Throttle Actuator Close Control	I	—
3	0.5	D-BU/WH	3630	Throttle Position Sensor SENT 1 Signal	I	—
4	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
5	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference 2	I	—
6	—	—	—	Not Occupied	—	—

Q38 Throttle Body



3747579

Connector Part Information

Harness Type: Engine
OEM Connector: 33220833
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

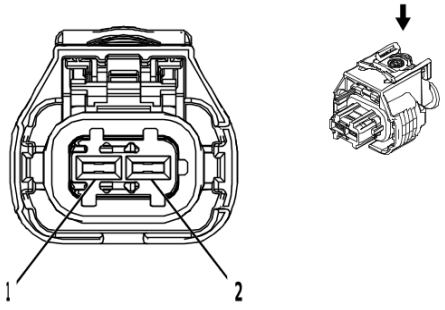
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required

Q38 Throttle Body

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Open Control	I	—
2	0.5	BN/WH	582	Throttle Actuator Close Control	I	—
3	0.5	D-BU/WH	3630	Throttle Position Sensor SENT 1 Signal	I	—
4	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
5	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference 2	I	—
6	—	—	—	Not Occupied	—	—

Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

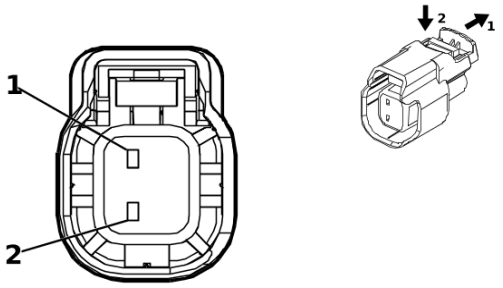
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required

Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BU	3231	Exhaust Gas Recirculation Cooler Bypass Solenoid Valve Control	I	—
2	0.5	GY/BU	3230	Exhaust Gas Recirculation Cooler Bypass Solenoid Valve Control	I	—

Q61 Reductant Injector



3028817

Connector Part Information

Harness Type: Engine
OEM Connector: 13946568
Service Connector: 19352404
Description: 2-Way F 1.5 Series, Sealed (BK)

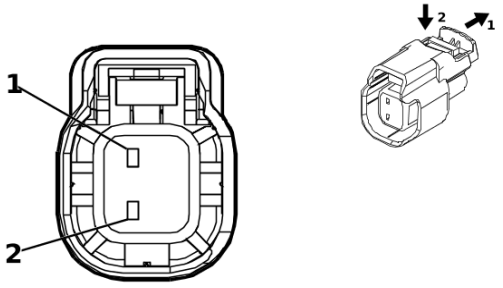
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

Q61 Reductant Injector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	3100	Diesel Exhaust Fluid Dosing Valve Low Control	I	—
2	0.5	BN	3099	Diesel Exhaust Fluid Dosing Valve High Control	I	—

Q67 Exhaust Aftertreatment Fuel Injector



3028817

Connector Part Information

Harness Type: Chassis
OEM Connector: 13820418
Service Connector: 13580230
Description: 2-Way F 1.5 Series, Sealed (BK)

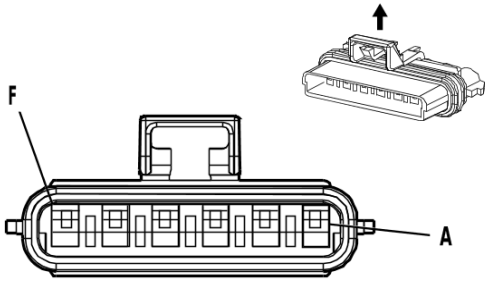
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

Q67 Exhaust Aftertreatment Fuel Injector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/BN	2927	Exhaust Aftertreatment Fuel Injector Low Control	I	—
2	0.75	BN/BU	2926	Exhaust Aftertreatment Fuel Injector High Control	I	—

R3 Blower Motor Resistor



535914

Connector Part Information

Harness Type: Engine
OEM Connector: 12160746
Service Connector: 15306007
Description: 6-Way F 280 Metri-Pack Flexlock Series, Sealed (L-GY)

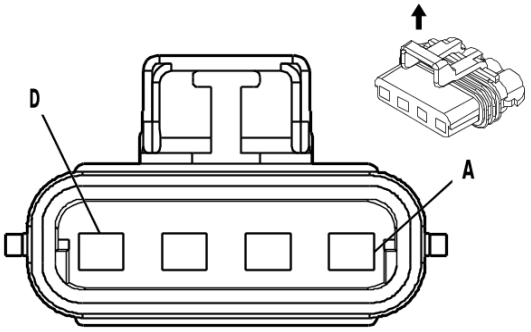
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

R3 Blower Motor Resistor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD/BK	542	Primary Fused Battery Positive Voltage 5	I	—
B	1	WH/BK	52	Blower Motor High Speed Control	I	—
C	4	BK	1250	Ground 12	I	LV1
	5	BK	1250	Ground 12	I	LWN
D	1	YE/BN	63	Blower Motor Medium Control 1	I	—
E	1	YE	60	Blower Motor Low Speed Control	I	—
F	2	D-BU/YE	72	Blower Motor Medium 2 Control	I	—

R3B Blower Motor Resistor - Auxiliary



697053

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129566
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 280 Metri-Pack Series, Sealed (GY)

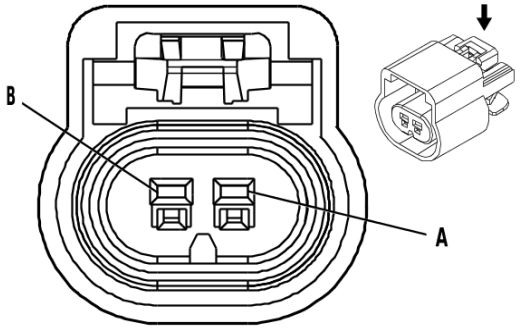
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

R3B Blower Motor Resistor - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	YE	1176	Auxiliary Blower Motor Low Speed Control	I	—
B	—	—	—	Not Occupied	—	—
C	3	L-BU	1072	Auxiliary Blower Motor Medium Speed Control	I	—
D	3	YE	1172	Auxiliary Blower Motor Control	I	—

R6A Terminating Resistor - High Speed Bus



523630

Connector Part Information

Harness Type: Engine
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

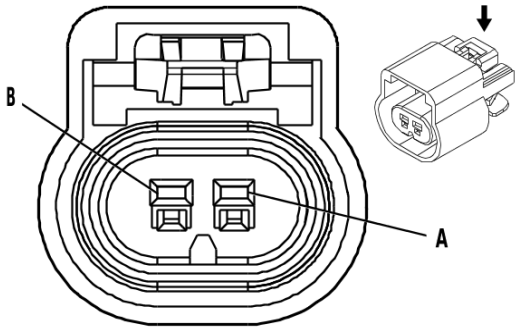
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

R6A Terminating Resistor - High Speed Bus

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
B	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—

R10 Cooling Fan Resistor



523630

Connector Part Information

Harness Type: Engine
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

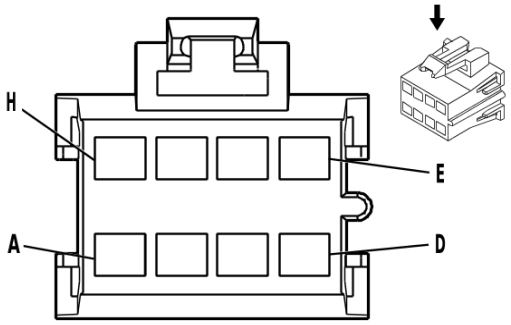
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

R10 Cooling Fan Resistor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY/RD	2365	Cooling Fan Speed Sensor 5V Reference	I	—
B	0.5	D-BU/VT	2364	Cooling Fan Speed Signal	I	—

S13A Door Lock Switch - Rear Cargo



62469

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 12064998
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series (BK)

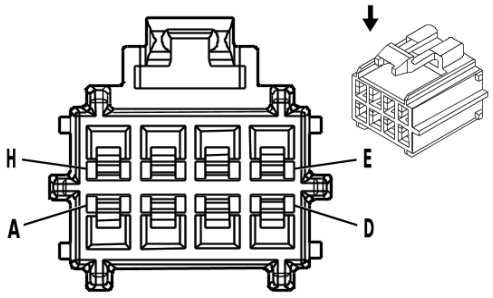
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S13A Door Lock Switch - Rear Cargo

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
B - C	—	—	—	Not Occupied	—	—
D	0.35	D-BU	245	Passenger Door Lock Switch Unlock Control	I	—
E	0.35	BK/WH	1051	Ground 10	I	—
F - H	—	—	—	Not Occupied	—	—

S13D Door Lock Switch - Driver



851474

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15418533
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series (L-GN)

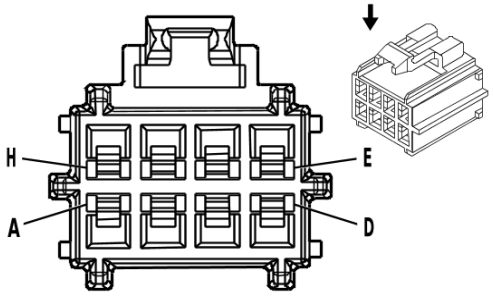
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S13D Door Lock Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	450	Ground 4	I	—
B	0.35	BK	450	Ground 4	I	—
C	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
D - E	—	—	—	Not Occupied	—	—
F	0.35	OG/BK	781	Driver Door Lock Switch Unlock Signal	I	—
G	0.35	PK/BK	780	Driver Door Lock Switch Lock Signal	I	—
H	—	—	—	Not Occupied	—	—

S13P Door Lock Switch - Passenger



851474

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15418533
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series (L-GN)

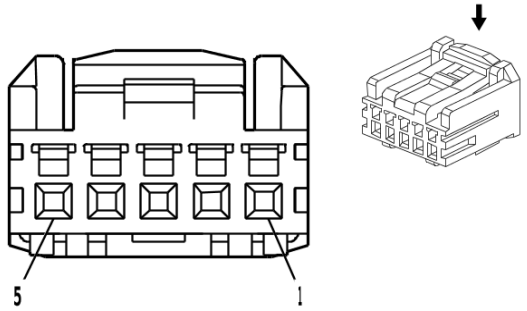
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S13P Door Lock Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground 18	I	—
B	0.35	BK	1850	Ground 18	I	—
C	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
D - E	—	—	—	Not Occupied	—	—
F	0.35	D-BU	245	Passenger Door Lock Switch Unlock Control	I	—
G	0.35	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
H	—	—	—	Not Occupied	—	—

S16 Driver Information Center Switch



1673494

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15491277
Service Connector: 88988747
Description: 5-Way F HCM Series (BK)

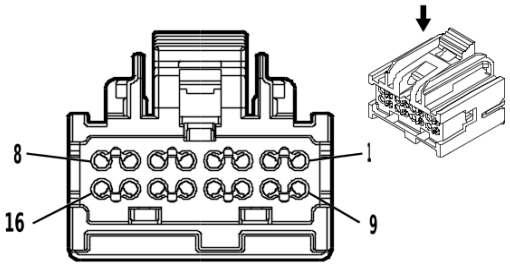
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required

S16 Driver Information Center Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN/WH	1358	Driver Information Center Switch Signal	I	—
2	0.35	BN	897	Driver Information Center Switch Low Reference	I	—
3	0.35	PK	893	Driver Information Center Select Menu Switch Signal	I	—
4	0.5	YE	6817	LED Backlight Dimming Control 1	I	—
5	0.5	BK/WH	351	Ground 3	I	—

S30 Headlamp Switch



2127936

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13568238
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579976	J-35616-64B (LT BU)	J-38125-21
II	13582245	J-35616-64B (LT BU)	J-38125-21

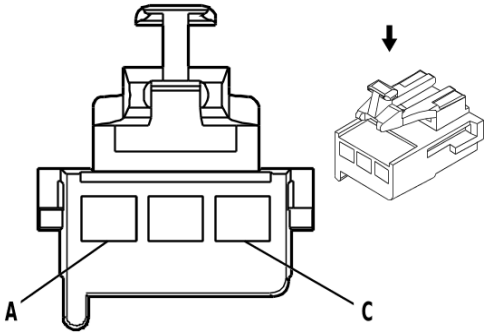
S30 Headlamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH	103	Headlamp Switch On Signal	II	—
2	0.35	L-BU	13	Headlamp Switch Park Lamp Signal	II	—
3	0.35	D-GN	306	Headlamp Switch Off Signal	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	II	—
8	0.5	BK/WH	351	Ground 3	I	—
9	0.35	PU	328	Dome/Reading Lamp Disable Switch Signal	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.35	D-BU/WH	149	Courtesy Lamp Control	II	—
13	0.35	D-GN	44	Instrument Panel Lamp Dimmer Switch Signal	II	—

S30 Headlamp Switch (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
14	—	—	—	Not Occupied	—	—
15	0.35	OG/WH	812	Dimmer Switch High Reference	II	—
16	—	—	—	Not Occupied	—	—

S34 HVAC Controls Switch Assembly X1



68737

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12129489
Service Connector: 19368864
Description: 3-Way F 280 Metri-Pack Flexlock Series (BK)

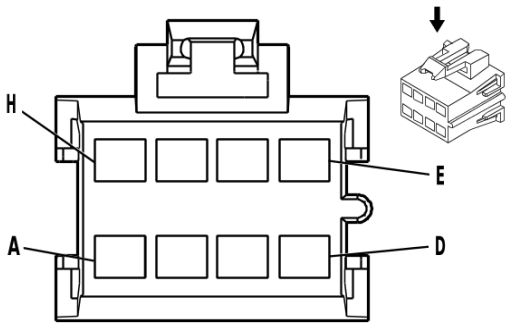
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	119	Mode Door Control	I	—
B	1	BK	550	Ground 5	I	—
C	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—

S34 HVAC Controls Switch Assembly X2



62469

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12064998
Service Connector: 15306189
Description: 8-Way F 280 Metri-Pack Series (BK)

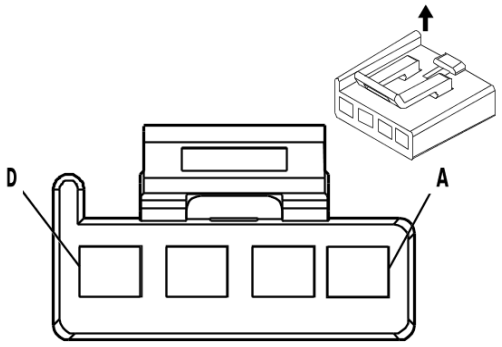
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	YE	60	Blower Motor Low Speed Control	I	—
B	0.8	TN	63	Blower Motor Medium Control 1	I	—
C	0.8	L-BU	72	Blower Motor Medium 2 Control	I	—
D	0.8	OG	52	Blower Motor High Speed Control	I	—
E	1	BN	141	Run Ignition 3 Voltage 1	I	—
F	0.8	L-BU	733	Air Temperature Door Position Signal	I	—
G	1	WH	119	Mode Door Control	I	—
H	0.5	D-GN/WH	762	A/C Request Signal 2	I	—

S34 HVAC Controls Switch Assembly X3



62450

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12052856
Service Connector: 12125636
Description: 4-Way F 280 Metri-Pack Series (BK)

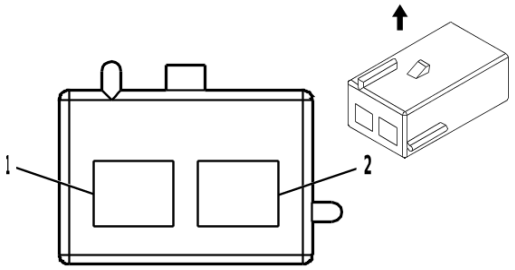
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	RD/WH	4440	Secondary Fused Battery Positive Voltage 44	I	—
B	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
C	1	BK	550	Ground 5	I	—
D	0.35	WH	193	Rear Defogger Relay Control	I	—

S34 HVAC Controls Switch Assembly X4



1283895

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15318080
Service Connector: 21019410
Description: 2-Way F 280 Metri-Pack Series (BK)

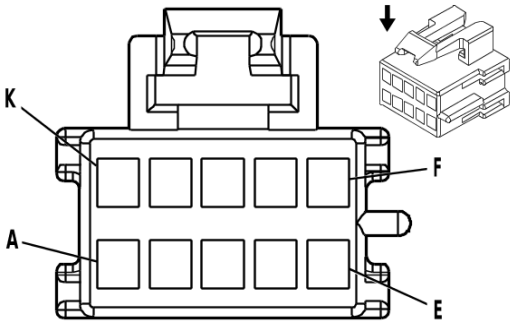
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	66	A/C Request Signal	I	—
2	0.5	D-GN/WH	762	A/C Request Signal 2	I	—

S34F HVAC Controls Switch Assembly - Auxiliary Front (-Rear HVAC Control)



803688

Connector Part Information

Harness Type: Headliner
OEM Connector: 12064871
Service Connector: 12101832
Description: 10-Way F 150 Metri-Pack Series (BU)

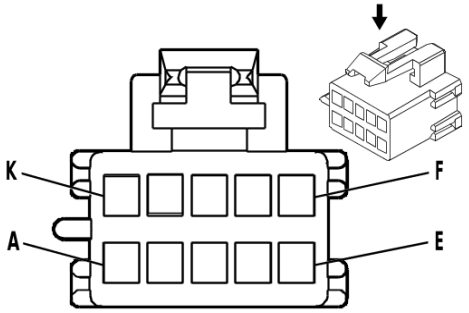
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575464	J-35616-14 (GN)	J-38125-12A

S34F HVAC Controls Switch Assembly - Auxiliary Front (-Rear HVAC Control)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	1850	Ground 18	I	—
C	0.5	D-BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	0.35	BK	1850	Ground 18	I	—
G	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
H	0.35	OG	2775	Rear Air Temperature Door Actuator Control	I	—
J	0.35	GY	2599	Rear Mode Door Actuator Signal	I	—
K	—	—	—	Not Occupied	—	—

S34F HVAC Controls Switch Assembly - Auxiliary Front (Rear HVAC Control)



62464

Connector Part Information

Harness Type: Headliner
OEM Connector: 12064769
Service Connector: 12101762
Description: 10-Way F 150 Metri-Pack Series (NA)

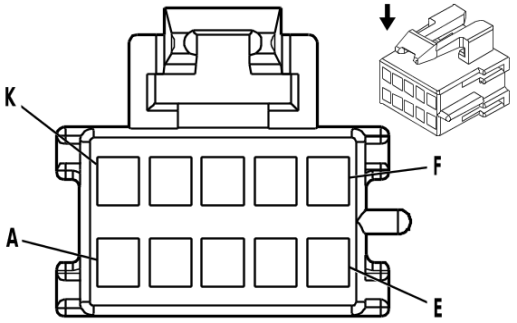
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575464	J-35616-14 (GN)	J-38125-12A

S34F HVAC Controls Switch Assembly - Auxiliary Front (Rear HVAC Control)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	1850	Ground 18	I	—
C	0.5	D-BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	0.35	YE	5262	Auxiliary HVAC Rear Controls Enable Signal	I	—
G	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
H	0.35	PU	5260	Auxiliary HVAC Front Temperature Signal	I	—
J	0.35	TN	5261	Auxiliary HVAC Front Mode Signal	I	—
K	—	—	—	Not Occupied	—	—

S34R HVAC Controls Switch Assembly - Auxiliary Rear



803688

Connector Part Information

Harness Type: Headliner
OEM Connector: 12064871
Service Connector: 12101832
Description: 10-Way F 150 Metri-Pack Series (BU)

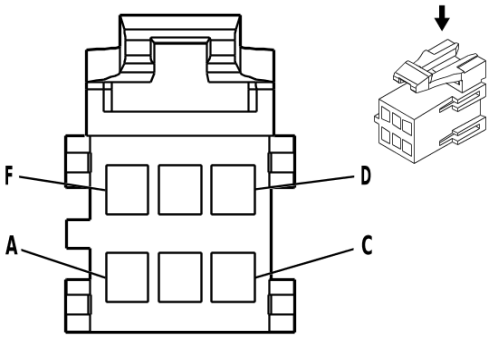
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575464	J-35616-14 (GN)	J-38125-12A

S34R HVAC Controls Switch Assembly - Auxiliary Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.5	BK	1050	Ground 10	I	—
C	0.5	D-BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	0.5	PK/BK	5265	Auxiliary HVAC Rear Control Signal	I	—
G	0.35	BN	341	Run Ignition 3 Voltage 3	I	—
H	0.5	BN	5263	Auxiliary HVAC Rear Temperature Signal	I	—
J	0.5	PU/WH	5264	Auxiliary HVAC Rear Mode Signal	I	—
K	—	—	—	Not Occupied	—	—

S40 Passenger Air Bag Disable Switch



362753

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15305286
Service Connector: 15306014
Description: 6-Way F 150 Metri-Pack Series (YE)

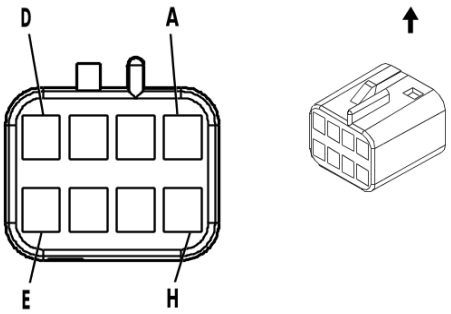
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

S40 Passenger Air Bag Disable Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	TN/BK	371	Passenger Supplemental Inflatable Restraint Disable Switch Signal	I	—
B	0.35	PK	1139	Run/Crank Ignition 1 Voltage 11	I	—
C	0.35	D-BU	2307	Passenger Air Bag On Indicator Control	I	—
D	0.5	PK	353	Passenger Supplemental Inflatable Restraint Suppression Indicator Control	I	—
E	0.5	BK/WH	1751	Ground 17	I	—
F	0.35	D-GN	2308	Passenger Air Bag Off Indicator Control	I	—

S51 Telematics Button Assembly



62439

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047886
Service Connector: 13584485
Description: 8-Way F 150 Metri-Pack Series (BK)

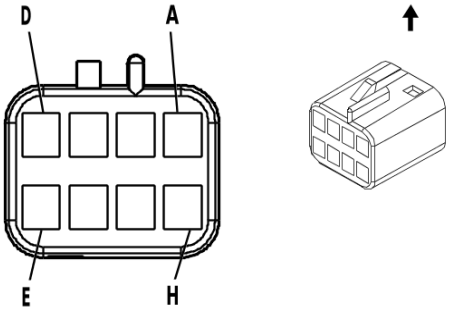
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

S51 Telematics Button Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	L-GN/BK	2515	Keypad Control	I	—
B	0.8	D-GN/WH	2514	Keypad Signal	I	—
C - D	—	—	—	Not Occupied	—	—
E	1	BK/WH	351	Ground 3	I	—
F	0.8	YE/BK	2516	Keypad Green LED Control	I	—
G	0.8	BN/WH	2517	Keypad Red LED Control	I	—
H	—	—	—	Not Occupied	—	—

S52 Outside Rearview Mirror Switch



62439

Connector Part Information

Harness Type: Driver Door
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

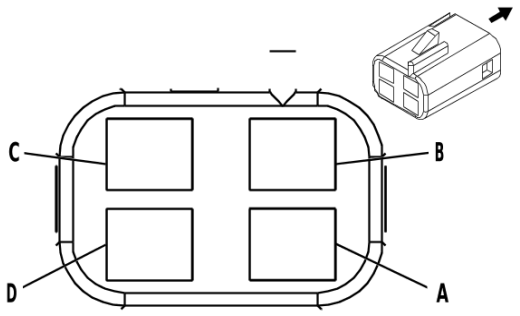
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

S52 Outside Rearview Mirror Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	OG/WH	881	Right Outside Rearview Mirror Motor Right Control	I	—
B	0.35	PU/WH	889	Right Outside Rearview Mirror Motor Down Control	I	—
C	0.35	BN/WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—
D	0.5	BK	450	Ground 4	I	—
E	0.5	RD/WH	4340	Secondary Fused Battery Positive Voltage 43	I	—
F	0.35	L-GN	89	Left Outside Rearview Mirror Motor Down Control	I	—
G	0.35	WH	81	Left Outside Rearview Mirror Motor Right Control	I	—
H	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—

S74 Tow/Haul Mode Switch



39660

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047785
Service Connector: 12102900
Description: 4-Way F 150 Metri-Pack Series (BK)

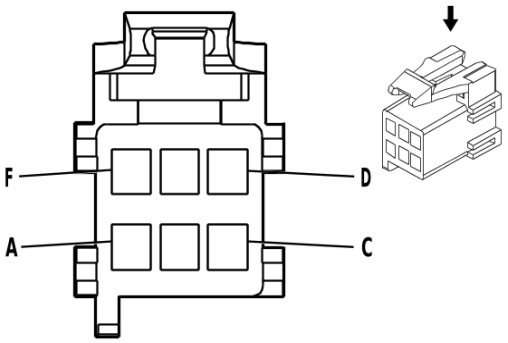
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

S74 Tow/Haul Mode Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK/WH	351	Ground 3	I	—
B	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	L-BU	1788	Traction Control Switch Signal 1	I	—

S75 Traction Control Switch



304345

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12177195
Service Connector: 15305931
Description: 6-Way F 150 Metri-Pack Series (BK)

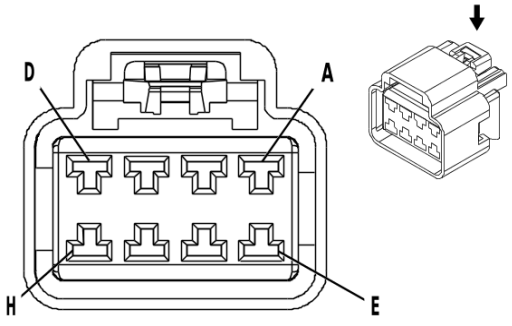
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

S75 Traction Control Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	0.35	BK/WH	351	Ground 3	I	—
D	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
E	—	—	—	Not Occupied	—	—
F	0.5	D-BU	6727	Vehicle Stability Control Switch Signal	I	—

S79D Window Switch - Driver



556473

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15459914

Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series (BK)

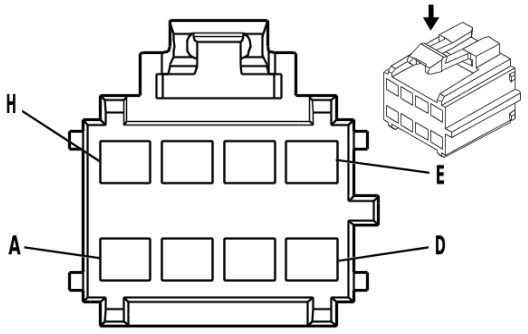
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S79D Window Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	L-BU	166	Right Front Window Up Switch Main Control Signal	I	—
B	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
C	3	D-GN	1001	Retained Accessory Power Control 2	I	—
D	3	TN	167	Right Front Window Down Switch Main Control Signal	I	—
E	—	—	—	Not Occupied	—	—
F	3	BK	450	Ground 4	I	—
G	3	D-BU	164	Left Front Window Motor Up Control	I	—
H	3	BN	165	Window Motor Left Front Down Control	I	—

S79P Window Switch - Passenger



333036

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 12191825
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series (BN)

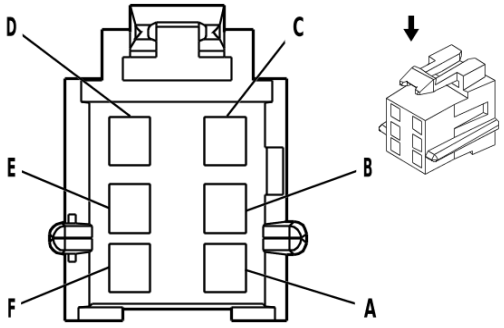
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S79P Window Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	D-GN	1001	Retained Accessory Power Control 2	I	—
B	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
C	0.35	BK	1850	Ground 18	I	—
D	3	TN	167	Right Front Window Down Switch Main Control Signal	I	—
E	—	—	—	Not Occupied	—	—
F	3	BN	667	Right Front Window Motor Down Control	I	—
G	3	D-BU	666	Right Front Window Motor Up Control	I	—
H	3	L-BU	166	Right Front Window Up Switch Main Control Signal	I	—

S85 Auxiliary Blower Motor Switch



62456

Connector Part Information

Harness Type: Auxiliary Heater Front
OEM Connector: 12064752
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series (BK)

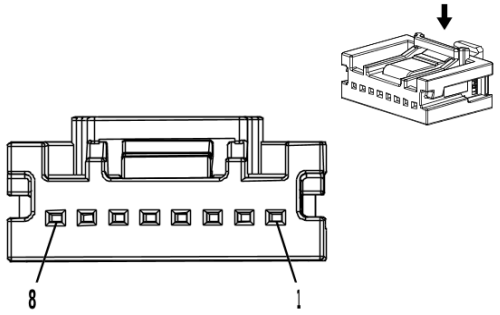
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

S85 Auxiliary Blower Motor Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	450	Ground 4	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.35	D-BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
F	0.35	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—

S155 Lane Departure Warning Switch



4017639

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33227522
Service Connector: 19354223
Description: 8-Way F Mini 50 Series (BK)

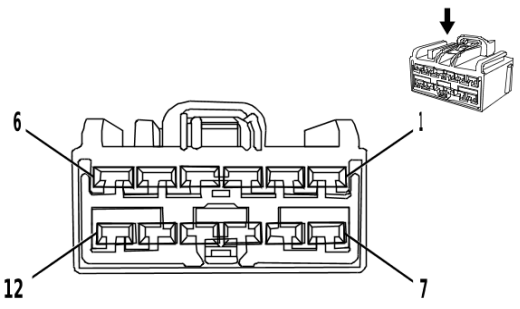
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	EL-35616-58 (BK)	No Tool Required

S155 Lane Departure Warning Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/GY	1382	LED Dimming Signal	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	—
5	0.35	WH	6816	Indicator Dimming Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	WH	3152	Lane Departure Warning Indicator Control	I	—
8	0.35	BK/WH	2151	Ground 21	I	—

T1 Accessory DC/AC Power Inverter Module



2231648

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846814
Service Connector: 13518424
Description: 12-Way F 2.8 Kaizen Series (L-GY)

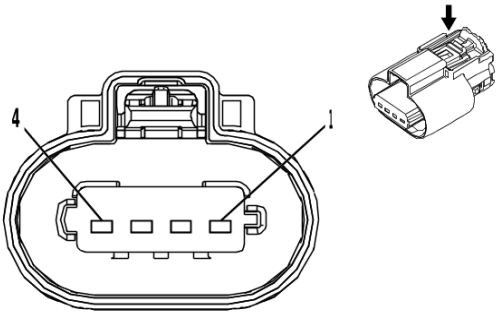
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300649	J-35616-4A (PU)	J-38125-215A
II	19301752	J-35616-4A (PU)	J-38125-215A
III	19301761	J-35616-4A (PU)	J-38125-215A

T1 Accessory DC/AC Power Inverter Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	1	BK	5683	120V AC Phase A	III	—
3 - 5	—	—	—	Not Occupied	—	—
6	3	RD/WH	4140	Secondary Fused Battery Positive Voltage 41	II	—
7	1	WH	5685	120V AC Neutral	III	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	Bare	514	Low Reference	I	—
11	3	BK	550	Ground 5	II	—
12	0.35	D-GN	2266	DC/AC Inverter Control 2	I	—

T8A Ignition Coil 1



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

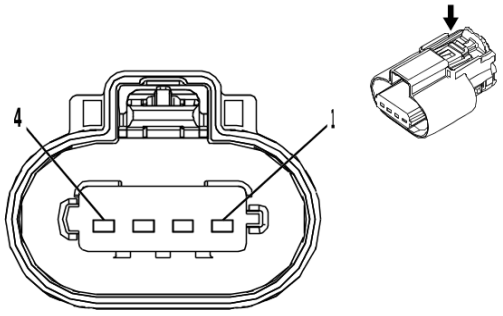
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8A Ignition Coil 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	D-BU/VT	2121	Ignition Control 1	I	—
4	0.75 0.75	VT/BU VT/GY	5291 1039	Powertrain Main Relay Fused Supply 2 Run/Crank Ignition 1 Voltage 10	I I	L8T LV1

T8B Ignition Coil 2



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

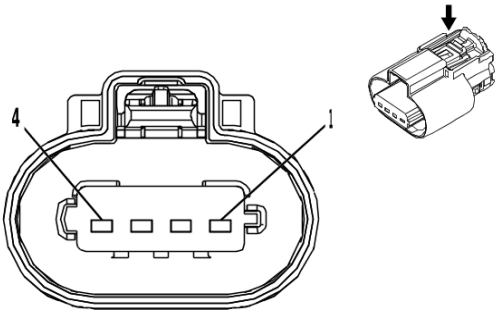
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8B Ignition Coil 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	D-BU/WH	2122	Ignition Control 2	I	—
4	0.75 0.75	VT/BU VT/BK	5292 1239	Powertrain Main Relay Fused Supply 3 Run/Crank Ignition 1 Voltage 12	I I	L8T LV1

T8C Ignition Coil 3



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

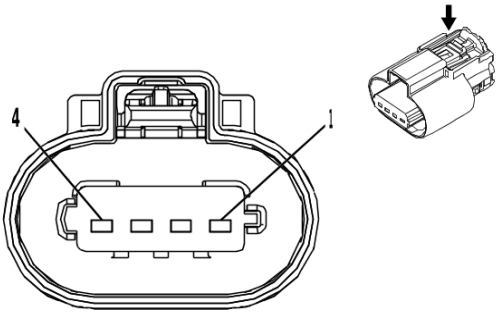
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8C Ignition Coil 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	L-GN/BU	2123	Ignition Control 3	I	—
4	0.75 0.75	VT/BU VT/GY	5291 1039	Powertrain Main Relay Fused Supply 2 Run/Crank Ignition 1 Voltage 10	I I	L8T LV1

T8D Ignition Coil 4



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211

Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

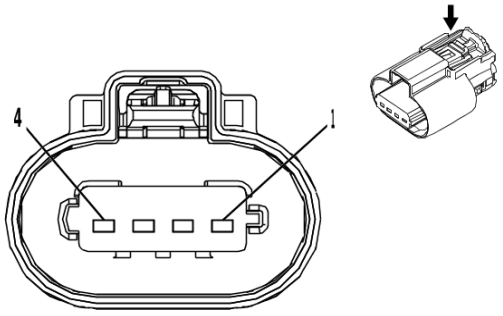
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8D Ignition Coil 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	YE/BU	2124	Ignition Control 4	I	—
4	0.75 0.75	VT/BU VT/BK	5292 1239	Powertrain Main Relay Fused Supply 3 Run/Crank Ignition 1 Voltage 12	I I	L8T LV1

T8E Ignition Coil 5



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

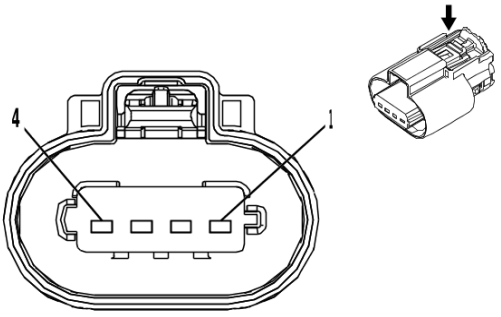
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8E Ignition Coil 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	D-BU/GY	2125	Ignition Control 5	I	—
4	0.75 0.75	VT/BU VT/GY	5291 1039	Powertrain Main Relay Fused Supply 2 Run/Crank Ignition 1 Voltage 10	I I	L8T LV1

T8F Ignition Coil 6



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

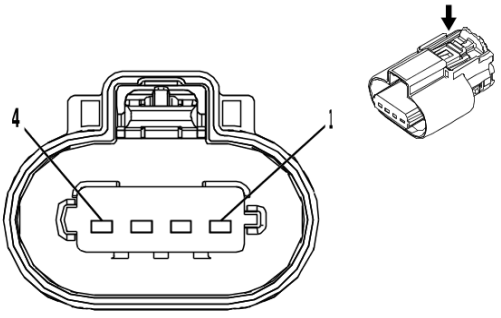
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8F Ignition Coil 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	BN/BU	2126	Ignition Control 6	I	—
4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	L8T
	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage 12	I	LV1

T8G Ignition Coil 7



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

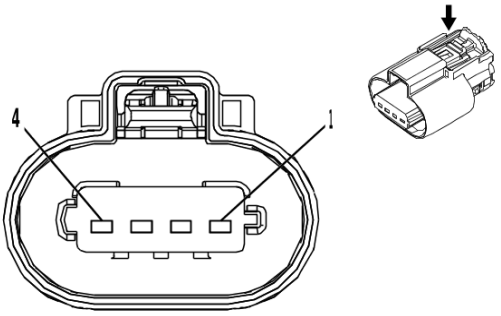
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

T8G Ignition Coil 7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	L-GN/GY	2127	Ignition Control 7	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8H Ignition Coil 8



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required

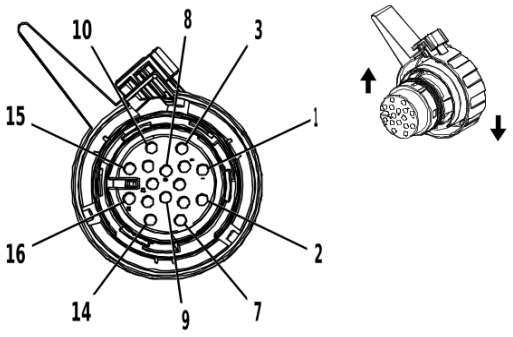
T8H Ignition Coil 8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground 3	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	VT/WH	2128	Ignition Control 8	I	—

T8H Ignition Coil 8 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—

T12 Automatic Transmission Assembly



3277917

Connector Part Information

Harness Type: Engine
OEM Connector: 13878751
Service Connector: 19303772
Description: 16-Way F 1.5 LKS Series, Sealed (BK)

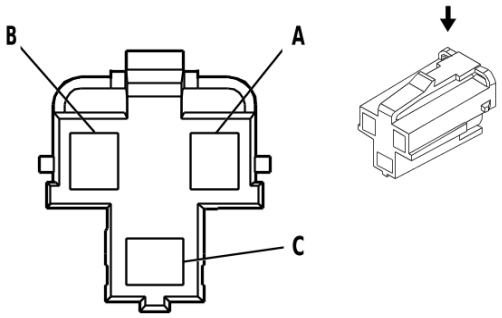
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575434	J-35616-66 (YE)	J-38125-28

T12 Automatic Transmission Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
4	0.5	RD/L-GN	1840	Secondary Fused Battery Positive Voltage 18	I	—
5	0.75	BK/WH	1551	Ground 15	I	—
6	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
9	0.5	VT/YE	5985	Accessory Wake-Up Serial Data	I	—
10	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
11	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
12	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage 21	I	—
13	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
14	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
15	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
16	0.5	BN/VT	6399	Replicated Transmission Output Speed Signal	I	—

X80A Accessory Power Receptacle - Center Console 1



362748

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19369634
Description: 3-Way F 280 Metri-Pack Series (GY)

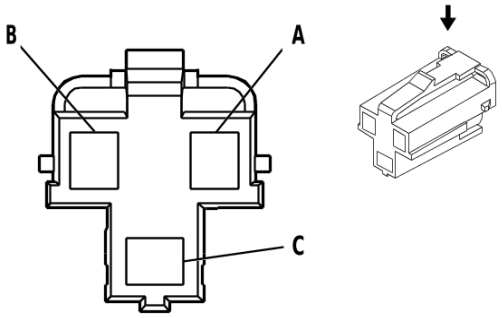
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

X80A Accessory Power Receptacle - Center Console 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	RD/WH	640	Secondary Fused Battery Positive Voltage 6	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	550	Ground 5	I	—

X80B Accessory Power Receptacle - Center Console 2



362748

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19369634
Description: 3-Way F 280 Metri-Pack Series (GY)

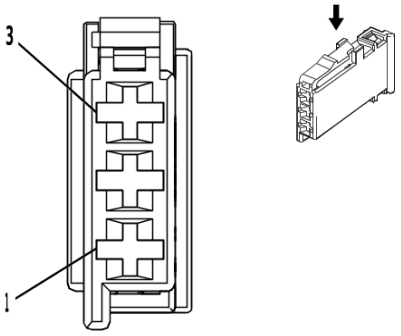
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

X80B Accessory Power Receptacle - Center Console 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	RD/WH	1040	Secondary Fused Battery Positive Voltage 10	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	550	Ground 5	I	—

X81 Accessory Power Receptacle - 110V AC X1



2039656

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10865339
Service Connector: 93186706
Description: 3-Way F 1.6 Micro-Timer Series (BK)

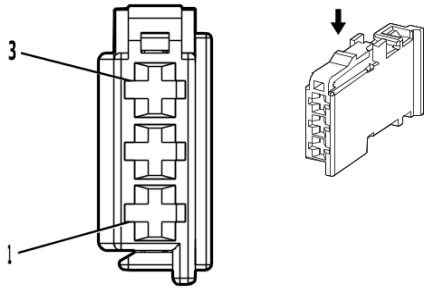
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

X81 Accessory Power Receptacle - 110V AC X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU	6807	DC/AC Inverter Control	I	—
2	—	—	—	Not Occupied	—	—
3	1	BK	5683	120V AC Phase A	I	—

X81 Accessory Power Receptacle - 110V AC X2



2236412

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13648774
Service Connector: 19367740
Description: 3-Way F 1.6 Timer Series, Sealed (GY)

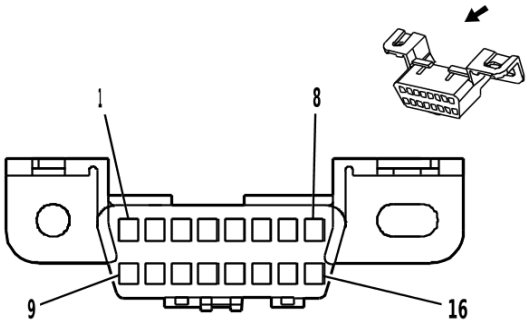
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required

X81 Accessory Power Receptacle - 110V AC X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN	2266	DC/AC Inverter Control 2	I	—
2	—	—	—	Not Occupied	—	—
3	1	WH	5685	120V AC Neutral	I	—

X84 Data Link Connector



68793

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12110250
Service Connector: 12110250
Description: 16-Way F 150 Metri-Pack Series (BK)

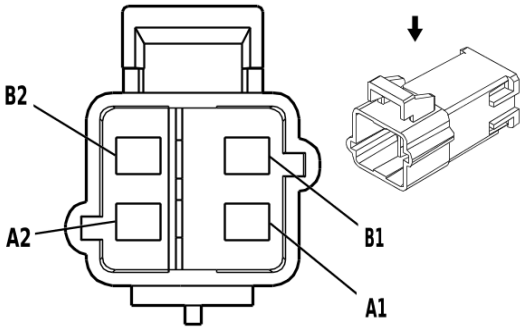
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575724	J-35616-14 (GN)	J-38125-12A
II	13580059	J-35616-14 (GN)	J-38125-12A

X84 Data Link Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BK/WH	351	Ground 3	II	—
5	0.5	BK/WH	351	Ground 3	II	—
6	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
7 - 13	—	—	—	Not Occupied	—	—
14	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
15	—	—	—	Not Occupied	—	—
16	0.8	RD/WH	640	Secondary Fused Battery Positive Voltage 6	II	—

X85 Steering Wheel Air Bag Coil X3



684931

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15336476
Service Connector: 88987998
Description: 4-Way M 280 Metri-Pack Series (YE)

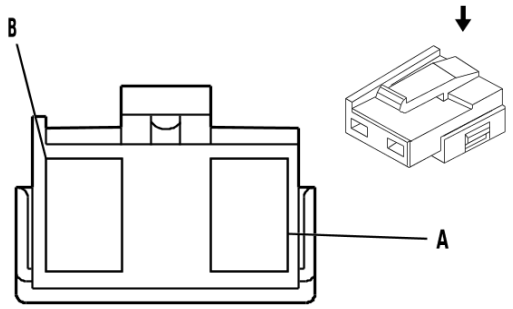
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-5 (PU)	No Tool Required

X85 Steering Wheel Air Bag Coil X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	TN	3021	Steering Wheel Air Bag Stage 1 High Control	I	—
A2	0.5	BN	3020	Steering Wheel Air Bag Stage 1 Low Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—

X87RB Sliding Door Jamb Contact Plate - Right Body (Body)



38274

Connector Part Information

Harness Type: Body
OEM Connector: 12034343
Service Connector: 12101821
Description: 2-Way F 280 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required

X87RB Sliding Door Jamb Contact Plate - Right Body (Body)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

X87RB Sliding Door Jamb Contact Plate - Right Body (Sliding Door)

—

Connector Part Information

Harness Type: Sliding Door
OEM Connector: 33148350
Service Connector: Service by Harness - See Part Catalog
Description: Contact Plate

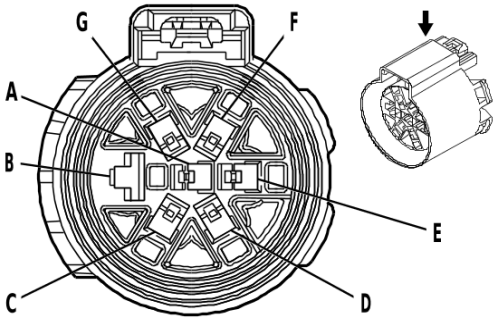
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required

X87RB Sliding Door Jamb Contact Plate - Right Body (Sliding Door)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

X88 Trailer Connector (-NE7)



2056936

Connector Part Information

Harness Type: Chassis
OEM Connector: 13857223
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-42 (RD)	No Tool Required
II	Not Required	J-35616-4A (PU)	No Tool Required

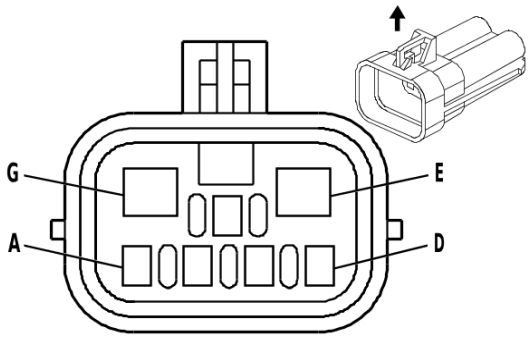
X88 Trailer Connector (-NE7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	L-GN	1624	Trailer Backup Lamp Control	II	—

X88 Trailer Connector (-NE7) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
B	8	WH	22	Trailer Ground	I	—
C	3	D-BU	47	Trailer Auxiliary Control	II	—
D	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	3	RD/BK	742	Primary Fused Battery Positive Voltage 7	II	—
F	1	BN	2109	Trailer Park Lamp Control	II	—
G	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X88 Trailer Connector (NE7)



1372292

Connector Part Information

Harness Type: Chassis
OEM Connector: 12052200
Service Connector: 19299890
Description: 7-Way M 150, 480 Metri-Pack Series, Sealed (BK)

Terminal Part Information

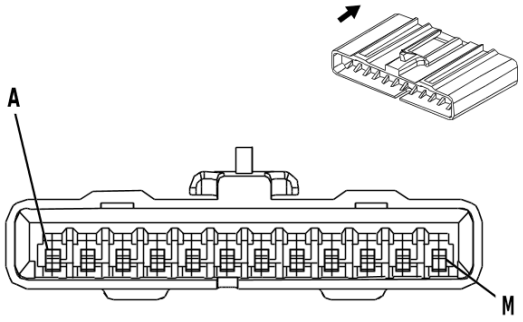
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-3 (GY)	No Tool Required
II	Not Required	J-35616-41 (BU)	No Tool Required

X88 Trailer Connector (NE7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	L-GN	1624	Trailer Backup Lamp Control	I	—
B	1	BN	2109	Trailer Park Lamp Control	I	—
C	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	I	—
D	—	—	—	Not Occupied	—	—
E	3	D-BU	47	Trailer Auxiliary Control	II	—
F	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	I	—
G	3	RD/BK	742	Primary Fused Battery Positive Voltage 7	II	—

Splice Pack Connector End Views

JX200 Splice Pack



966355

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176461
Service Connector: 15305914
Description: 12-Way F 150 GT Series (BK)

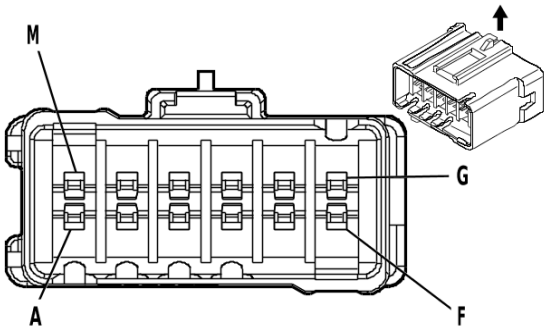
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A

JX200 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
B	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
C	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
D	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
E	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
F	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
G	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
H	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
J	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	—
K	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	—
L	0.5	D-GN	5060	Low Speed GMLAN Serial Data	I	—
M	0.5	D-GN	5060	Low Speed GMLAN Serial Data	I	—

JX250 Splice Pack



803605

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15305288
Service Connector: 12167610
Description: 12-Way F 280 Metri-Pack Series (BK)

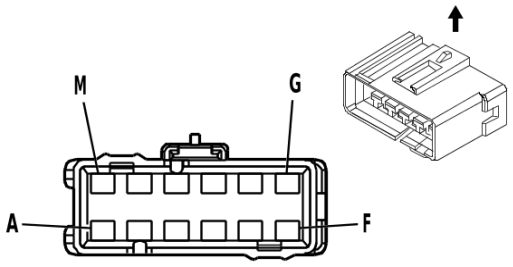
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575721	J-35616-4A (PU)	J-38125-553

JX250 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
B	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
C	0.5	D-BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
D - J	—	—	—	Not Occupied	—	—
K	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
L	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
M	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—

JX347 Splice Pack



365987

Connector Part Information

Harness Type: Body
OEM Connector: 12191928
Service Connector: 88986418
Description: 12-Way F 280 Metri-Pack Series (BK)

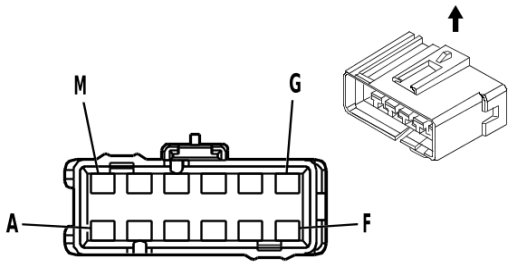
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575721	J-35616-4A (PU)	J-38125-553
II	13579958	J-35616-4A (PU)	J-38125-11A
III	19330177	J-35616-4A (PU)	J-38125-11A

JX347 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	450	Ground 4	I	—
B - C	—	—	—	Not Occupied	—	—
D	5	BK	450	Ground 4	II	—
E	3	BK	450	Ground 4	III	—
F	3	BK	450	Ground 4	III	—
G	0.5	BK	450	Ground 4	I	—
H	5	BK	450	Ground 4	II	—
J	0.5	BK	450	Ground 4	I	—
K	0.5	BK	450	Ground 4	I	—
L	—	—	—	Not Occupied	—	—
M	0.35	BK	450	Ground 4	I	—

JX348 Splice Pack



365987

Connector Part Information

Harness Type: Body
OEM Connector: 12191928
Service Connector: 88986418
Description: 12-Way F 280 Metri-Pack Series (BK)

Terminal Part Information

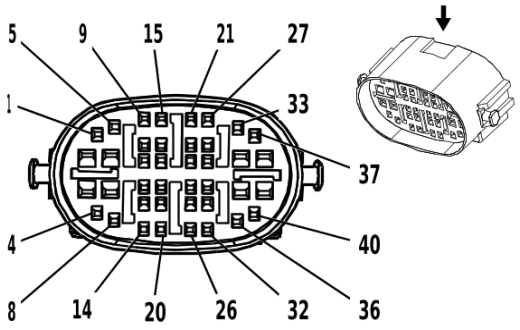
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575721	J-35616-4A (PU)	J-38125-553
II	19330177	J-35616-4A (PU)	J-38125-11A

JX348 Splice Pack

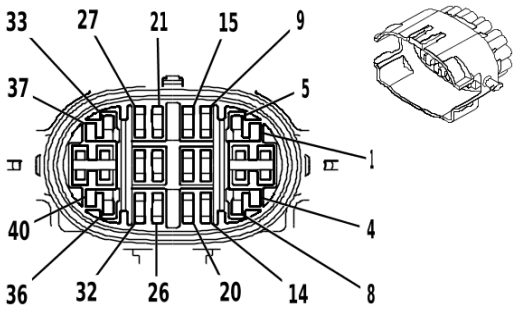
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground 18	I	—
B	0.8	BK	1850	Ground 18	I	—
C	3	BK	1850	Ground 18	II	—
D	0.35	BK	1850	Ground 18	I	—
E	—	—	—	Not Occupied	—	—
F	0.5	BK	1850	Ground 18	I	—
G	0.5	BK/WH	2751	Ground 27	I	—
H	—	—	—	Not Occupied	—	—
J	1	BK	1850	Ground 18	I	—
K - M	—	—	—	Not Occupied	—	—

Inline Harness Connector End Views

X100 Instrument Panel Harness to Engine Harness



1713502



1713503

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13601803
Service Connector: 19166997
Description: 40-Way F 150, 280 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 13605375
Service Connector: 19169297
Description: 40-Way M 150, 280 GT Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575396	J-35616-14 (GN)	J-38125-215A
II	13575412	J-35616-14 (GN)	J-38125-215A
III	13575412	J-35616-4A (PU)	J-38125-215A
IV	13576360	J-35616-4A (PU)	J-38125-215A
V	13576407	J-35616-4A (PU)	J-38125-215A
VI	13580824	J-35616-4A (PU)	J-38125-215A

Terminal Part Information (cont'd)

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
VII	13580824	J-35616-4A (PU)	J-38125-553
VIII	13575353	J-35616-5 (PU)	J-38125-215A
IX	13575443	J-35616-5 (PU)	J-38125-215A
X	13576364	J-35616-3 (GY)	J-38125-215A
XI	13580826	J-35616-5 (PU)	J-38125-215A
XII	19368625	J-35616-3 (GY)	J-38125-215A

X100 Instrument Panel Harness to Engine Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	WH/ BU	6311	IV	—	Cruise/ETC/ TCC Brake Signal	1	0.5	WH/ BU	6311	X	—
2	0.8	OG	52	VI	—	Blower Motor High Speed Control	2	1	WH/ BK	52	XI	—
3	0.8	BU	72	VI	—	Blower Motor Medium 2 Control	3	2	BU/ YE	72	IX	—
4	0.5	OG	1732	III	—	Control Module 12V Reference 3	4	0.5	VT/ RD	1732	X	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.8	TN	63	VI	—	Blower Motor Medium Control 1	6	1	YE/ BN	63	XI	—
7	2	BK	1250	V	—	Ground 12	7	2	BK	1250	IX	—
8	0.8	YE	60	II	—	Blower Motor Low Speed Control	8	1	YE	60	X	—
9	0.5	GN/ BN	507	III	—	Wait To Start Indicator Control	9	0.5	GN/ BN	507	X	—
10 - 11	—	—	—	—	—	Not Occupied	10 - 11	—	—	—	—	—
12	0.5	GN	1478	III	—	Coolant Level Switch Signal	12	0.5	GN/ YE	1478	X	—
13	0.5	BK/ WH	351	III	—	Ground 3	13	0.5	BK/ WH	351	X	—
14	0.5	GN	66	III	—	A/C Request Signal A/C Request Signal	14	0.5 0.5	BN BN/ WH	66 66	X X	— —
15	0.5	WH/ BU	5986	III	—	Serial Data Communication Enable	15	0.5	WH/ BU	5986	X	—
16	0.5	GN	66	III	—	A/C Request Signal	16	0.5	BN/ WH	66	X	—
17	0.75	GN/ GY	333	II	—	Brake Fluid Level Switch Signal	17	0.75	GN/ GY	333	X	—
18	0.5	BN/ WH	419	III	—	Check Engine Indicator Control	18	0.5	BN/ WH	419	X	—
19	0.5	BU	5985	III	—	Accessory Wake-Up Serial Data	19	0.5	VT/ YE	5985	X	—

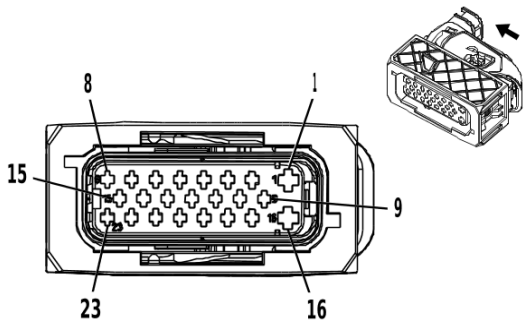
X100 Instrument Panel Harness to Engine Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.35	BK/ BU	1271	I	—	Accelerator Pedal Position Low Reference 1	21	0.5	BK/ BU	1271	XII	—
22	0.35	WH/ RD	1164	I	—	Accelerator Pedal Position 5 Volt Reference 1	22	0.5	WH/ RD	1164	XII	—
23	0.35	BN/ RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	23	0.5	BN/ RD	1274	XII	—
24	0.5	BK/ WH	451	III	—	Ground 4	24	0.75	BK/ WH	451	X	—
25	0.5	WH	5075	III	—	Current Sensor Signal	25	0.5	WH/ YE	5075	X	—
26	0.5	BN	5077	III	—	Current Sensor Low Reference	26	0.5	BK/ VT	5077	X	—
27	0.35	YE/ WH	1161	I	—	Accelerator Pedal Position Signal 1	27	0.5	YE/ WH	1161	XII	—
28	0.35	BK/ VT	1272	I	—	Accelerator Pedal Position Low Reference 2	28	0.5	BK/ VT	1272	XII	—
29	0.35	GN/ WH	1162	I	—	Accelerator Pedal Position Signal 2	29	0.5	GN/ WH	1162	XII	—
30	0.5	PK	5076	III	—	Current Sensor Voltage Reference	30	0.5	BU/ VT	5076	X	—
31	1	RD/ WH	440	II	—	Secondary Fused Battery Positive Voltage 4	31	—	—	—	—	—
32	—	—	—	—	—	Not Occupied	32	—	—	—	—	—
33	0.5	BU	2500	III	—	High Speed GMLAN Serial Data [+] 1	33	0.5	BU	2500	X	—
34	0.5	BK/ YE	407	VII	—	Engine Control Sensors Low Reference 2 Sensor Low Reference	34	0.5 0.5	BK/ GN BK/ YE	580 407	VIII VIII	— —
35	0.5	GN/ BK	735	VII	—	Ambient Air Temperature Sensor Signal Ambient Air Temperature Sensor Signal 2	35	0.5 0.5	BU/ GY GN/ BK	636 735	VIII VIII	— —
36	0.5	BU	2500	III	—	High Speed GMLAN Serial Data [+] 1	36	0.5	BU	2500	X	—
37	0.5	WH	2501	III	—	High Speed GMLAN Serial Data [-] 1	37	0.5	WH	2501	X	—
38 - 39	—	—	—	—	—	Not Occupied	38 - 39	—	—	—	—	—

X100 Instrument Panel Harness to Engine Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
40	0.5	WH	2501	III	—	High Speed GMLAN Serial Data [-] 1	40	0.5	WH	2501	X	—

X101 Engine Harness to Chassis Harness



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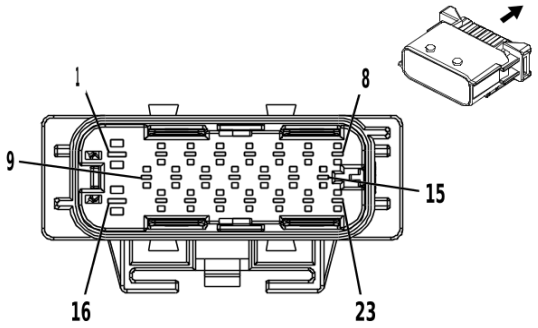


2906943

Connector Part Information

Harness Type: Engine
OEM Connector: 13674800
Service Connector: 19300480
Description: 23-Way F 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 13674783
Service Connector: 19303858
Description: 23-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576369	J-35616-14 (GN)	J-38125-560
II	13575380	J-35616-3 (GY)	EL-38125-560-A

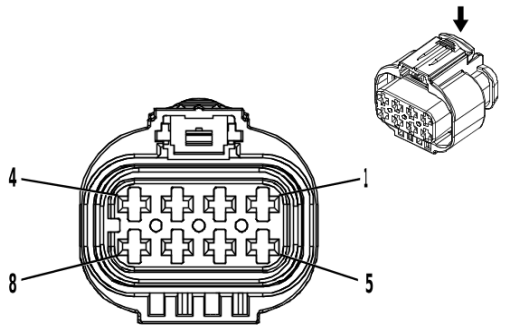
X101 Engine Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	BU	2500	I	—	High Speed GMLAN Serial Data [+] 1	2	0.5	BU	2500	II	—
3	0.5	WH	2501	I	—	High Speed GMLAN Serial Data [-] 1	3	0.5	WH	2501	II	—
4	0.5	YE	2375	I	—	Left Rear Outer Parking Assist Sensor Signal	4	0.5	YE	2375	II	—
5	0.5	YE/ BU	2376	I	—	Left Rear Middle Parking Assist Sensor Signal	5	0.5	YE/ BU	2376	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.5	BK/ GY	2379	I	—	Object Sensor Low Reference	7	0.5	BK/ GY	2379	II	—
8	0.5	GN/ GY	465	I	—	Fuel Pump Primary Relay Control	8	0.5	GN/ GY	465	II	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	YE/ WH	2377	I	—	Right Rear Middle Parking Assist Sensor Signal	10	0.5	YE/ WH	2377	II	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—

X101 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	0.5	VT/ GN	4320	I	—	Selective Catalytic Reduction Power Module Wake-Up Signal	12	0.5	VT/ GN	4320	II	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	BN/ WH	2374	I	—	Object Sensor Supply Voltage	14	0.5	BN/ WH	2374	II	—
15	0.5	YE/ VT	2378	I	—	Right Rear Outer Parking Assist Sensor Signal	15	0.5	YE/ VT	2378	II	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—
17	0.5	BU/ BN	4498	I	—	High Speed GMLAN Serial Data [+] 7	17	0.5	BU/ BN	4498	II	—
18	0.5	WH	4499	I	—	High Speed GMLAN Serial Data [-] 7	18	0.5	WH	4499	II	—
19	—	—	—	—	—	Not Occupied	19	—	—	—	—	—
20	0.5	WH/ BU	5986	I	—	Serial Data Communication Enable	20	0.5	WH/ BU	5986	II	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	BU	2500	I	—	High Speed GMLAN Serial Data [+] 1	22	0.5	BU	2500	II	—
23	0.5	WH	2501	I	—	High Speed GMLAN Serial Data [-] 1	23	0.5	WH	2501	II	—

X102 Chassis Harness to Fuel Tank Harness



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3749582

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180742
Service Connector: 19354078
Description: 8-Way F 2.8 Series, Sealed (L-GY)

Connector Part Information

Harness Type: Fuel Tank
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

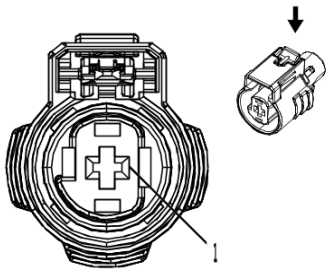
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X102 Chassis Harness to Fuel Tank Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	GY	120	I	—	Fuel Pump Control	1	2.5	GY	120	II	—
2	2.5	YE/GY	4137	I	—	Fuel Pump Supply Voltage Phase 2	2	2.5	YE/GY	4137	II	—
3	2.5	WH/BN	4138	I	—	Fuel Pump Supply Voltage Phase 3	3	2.5	WH/BN	4138	II	—
4	0.5	BK	7444	I	—	Fuel Pump Assembly Shield Ground	4	0.5	BK	7444	II	—
5	0.5	BU/VT	1589	I	—	Primary Fuel Level Sensor Signal 2	5	0.5	BU/VT	1589	II	—
6	0.5	BK/GN	6281	I	—	Fuel Level Sensor Low Reference	6	0.5	BK/GN	6281	II	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X103 Engine Harness to Starter Jumper Harness



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2717134

Connector Part Information

Harness Type: Engine
OEM Connector: 15526411
Service Connector: 19300471
Description: 1-Way F 2.8 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Starter Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M

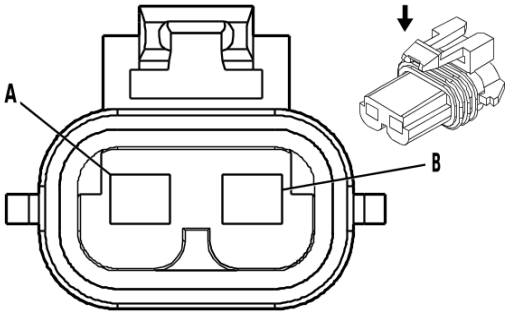
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X103 Engine Harness to Starter Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	4	YE	6	I	—	Starter Solenoid Actuator Crank Ignition Voltage	1	4	YE	6	II	—

X104 Instrument Panel Harness to Air Bag Jumper Harness



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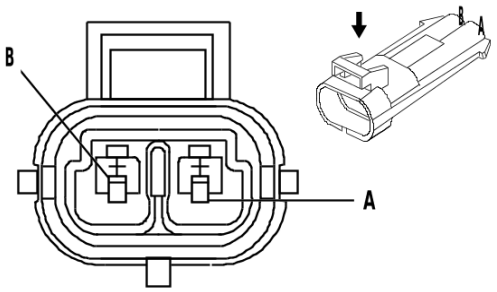


879383

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12077900
Service Connector: 12116247
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 15317807
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 280 Metri-Pack Series (BK)

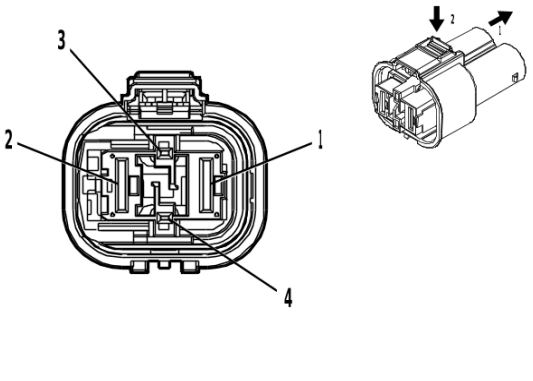
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X104 Instrument Panel Harness to Air Bag Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	D-BU/WH	6619	I	—	Front Middle Impact Discriminating Sensor Low Reference	A	0.5	D-BU/WH	6619	II	—
B	0.5	BN/WH	6618	I	—	Front Middle Impact Discriminating Sensor Signal	B	0.5	BN/WH	6618	II	—

X108 Battery Cable - Positive Harness to Engine Harness



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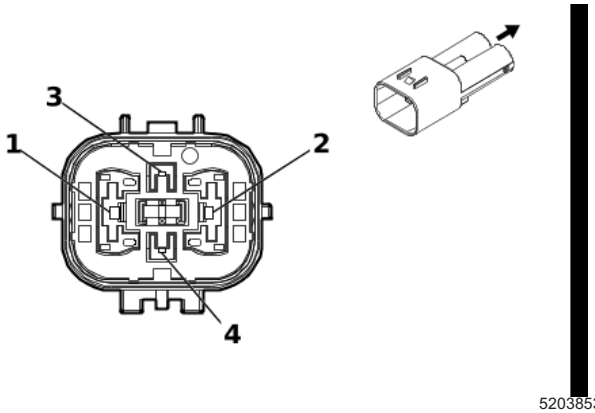


5203853

Connector Part Information

Harness Type: Battery Cable - Positive
OEM Connector: 33389553
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2, 9.5 MCON Series (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 33379229
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2, 9.5 MCON Series (BK)

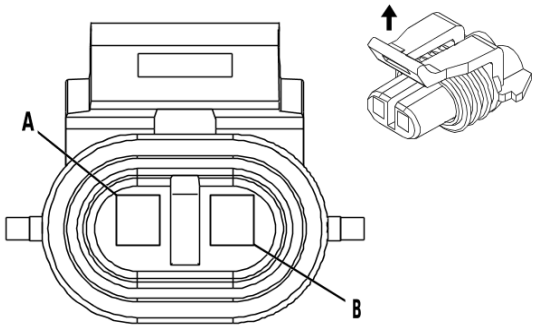
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	No Tool Required	No Tool Required
II	Not Required	J-35616-21 (RD)	No Tool Required

X108 Battery Cable - Positive Harness to Engine Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	10	RD/ YE	2	I	—	Battery Positive Voltage	1	6	RD/ YE	2	II	—
2	10	RD/ YE	2	I	—	Battery Positive Voltage	2	10	RD/ YE	2	II	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

X109 Engine Harness to Underhood Lamp Harness



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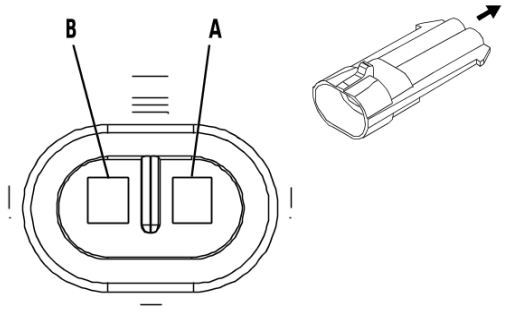


333041

Connector Part Information

Harness Type: Engine
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Underhood Lamp
OEM Connector: 12162000
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (BK)

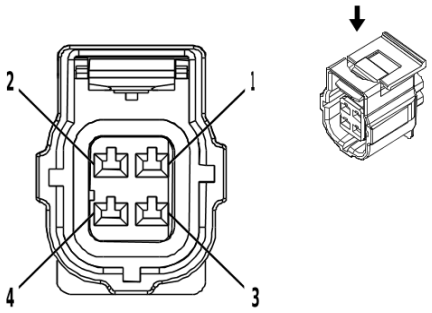
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X109 Engine Harness to Underhood Lamp Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	VT/ RD	1732	I	—	Control Module 12V Reference 3	A	0.5	OG	1732	II	—
B	0.75	BK	1250	I	—	Ground 12	B	0.5	BK	1250	II	—

X111 Engine Harness to Glow Plug Jumper Harness



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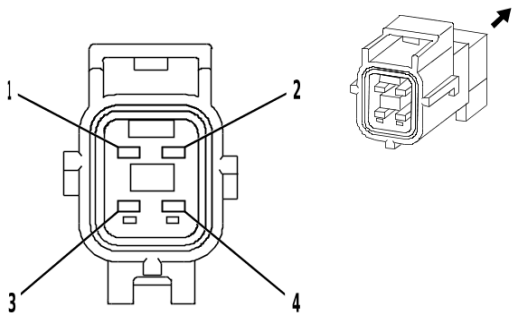


1243485

Connector Part Information

Harness Type: Engine
OEM Connector: 33225173
Service Connector: 13587793
Description: 4-Way F SSC Series (BK)

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 184346-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M Sealed Sensor Connector System (BK)

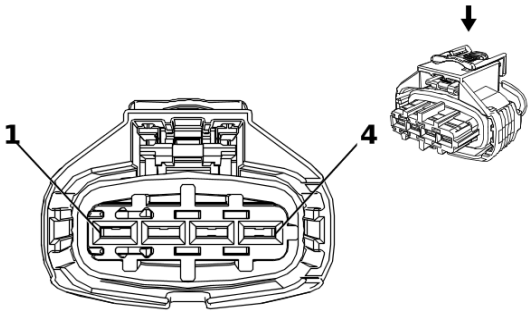
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-64B (LT BU)	No Tool Required
II	Not Required	J-35616-34 (YE)	No Tool Required

X111 Engine Harness to Glow Plug Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2	GY/ BU	1581	I	—	Glow Plug 1 Control	1	1.5	GN/ BK	—	II	—
2	2	GY/ BN	1582	I	—	Glow Plug 2 Control	2	1.5	RD/ BK	—	II	—
3	2	GY/ L-GN	1583	I	—	Glow Plug 3 Control	3	1.5	WH/ BK	—	II	—
4	2	GY/ YE	1584	I	—	Glow Plug 4 Control	4	1.5	BK	—	II	—

X112 Engine Harness to Intake Manifold Pressure and Air Temperature Sensor Jumper Harness



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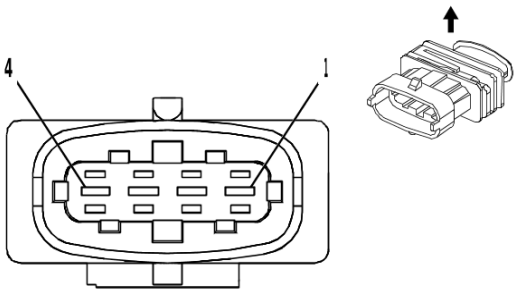


816173

Connector Part Information

Harness Type: Engine
OEM Connector: 13931683
Service Connector: 13584423
Description: 4-Way F 2.8 Series, Sealed (BK)

Connector Part Information

Harness Type: Intake Manifold Pressure and Air Temperature Sensor Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M

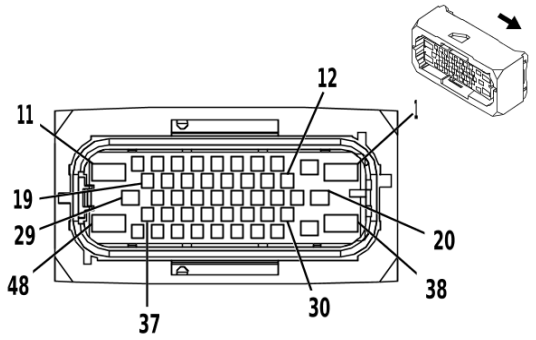
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-35 (VT)	No Tool Required
II	Not Required	No Tool Required	No Tool Required

X112 Engine Harness to Intake Manifold Pressure and Air Temperature Sensor Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK/GN	469	I	—	Manifold Absolute Pressure Sensor Low Reference	1	0.5	BK/GN	469	II	—
2	0.5	BN	7348	I	—	Intake Air Temperature Sensor 2 Signal	2	0.5	BN	7348	II	—
3	0.5	GY/RD	2704	I	—	Manifold Absolute Pressure Sensor 5V Reference	3	0.5	GY/RD	2704	II	—
4	0.5	GN/WH	432	I	—	Manifold Absolute Pressure Sensor Signal	4	0.5	GN/WH	432	II	—

X116 Engine Harness to Chassis Harness



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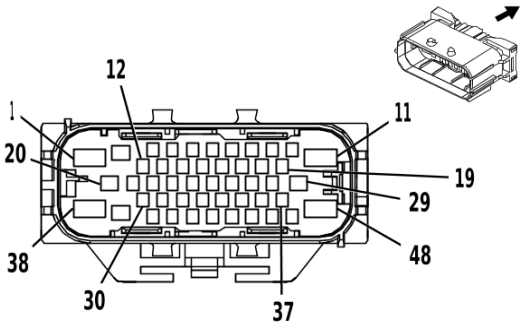


3924401

Connector Part Information

Harness Type: Engine
OEM Connector: 15509585
Service Connector: 19329744
Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 15513438
Service Connector: 19356277
Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580829	J-35616-4A (PU)	J-38125-36
II	13580830	J-35616-4A (PU)	J-38125-36
III	19119560	J-35616-40 (BU)	J-38125-556
IV	19301766	J-35616-14 (GN)	J-38125-215A
V	19301775	J-35616-40 (BU)	J-38125-556
VI	19301776	J-35616-14 (GN)	J-38125-215A
VII	13575380	J-35616-3 (GY)	EL-38125-560-A
VIII	13578827	J-35616-5 (PU)	J-38125-36
IX	13580827	J-35616-5 (PU)	J-38125-36
X	19301750	J-35616-32 (OR)	J-38125-36

X116 Engine Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	2.5	BU	3921	I	—	—	2	2.5	BU	3921	VIII	—
3	0.5	GN/BU	3889	VI	—	Powertrain Sensor Bus Relay Control	3	0.5	GN/BU	3889	VII	—
4	0.5	YE/WH	2377	VI	—	Right Rear Middle Parking Assist Sensor Signal	4	0.5	YE/WH	2377	VII	—
5	0.5	BU	2500	VI	—	High Speed GMLAN Serial Data [+] 1	5	0.5	BU	2500	VII	—
6	0.5	WH	2501	VI	—	High Speed GMLAN Serial Data [-] 1	6	0.5	WH	2501	VII	—

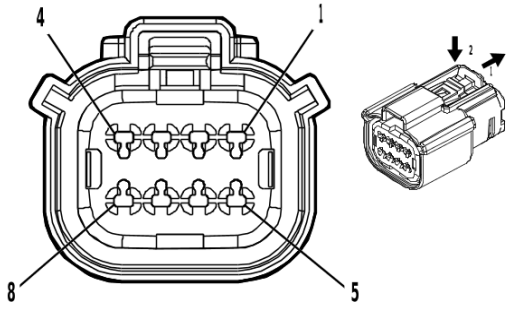
X116 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	WH/RD	6054	VI	—	Exhaust Pressure Sensor 1 5V Reference	7	0.5	WH/RD	6054	VII	—
8	0.5	BK/YE	6055	VI	—	Exhaust Pressure Sensor 1 Low Reference	8	0.5	BK/YE	6055	VII	—
9	0.5	BK/GN	6281	IV	—	Fuel Level Sensor Low Reference	9	0.5	BK/GN	6281	VII	—
10	0.5	BU/VT	1589	IV	—	Primary Fuel Level Sensor Signal 2	10	0.5	BU/VT	1589	VII	—
11	1	GY	3672	V	—	NOx Sensor 2 Control	11	1	GY	3672	X	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—
13	0.5	BN/WH	7073	IV	—	Fuel Temperature Sensor 1 Low Reference	13	0.5	BN/WH	7073	VII	—
14	0.5	BN/GY	7072	IV	—	Fuel Temperature Sensor 1 Signal	14	0.5	BN/GY	7072	VII	—
15	0.5	BN/WH	2374	VI	—	Object Sensor Supply Voltage	15	0.5	BN/WH	2374	VII	—
16	0.5	YE	2375	VI	—	Left Rear Outer Parking Assist Sensor Signal	16	0.5	YE	2375	VII	—
17	0.5	YE/BU	2376	VI	—	Left Rear Middle Parking Assist Sensor Signal	17	0.5	YE/BU	2376	VII	—
18 - 19	—	—	—	—	—	Not Occupied	18 - 19	—	—	—	—	—
20	0.5	BU	6053	II	—	Exhaust Pressure Sensor 1 Signal	20	0.5	BU	6053	IX	—
21	0.5	BU/YE	6861	IV	—	Water In Fuel Sensor Signal	21	0.5	BU/YE	6861	VII	—
22 - 23	—	—	—	—	—	Not Occupied	22 - 23	—	—	—	—	—
24	0.5	GY/BN	7065	VI	—	Right Front Wheel Speed Sensor Control	24	0.5	GY/BN	7065	VII	—
25	0.5	YE	872	VI	—	Right Front Wheel Speed Sensor Signal	25	0.5	YE	872	VII	—
26	0.5	YE/VT	2378	VI	—	Right Rear Outer Parking Assist Sensor Signal	26	0.5	YE/VT	2378	VII	—
27	—	—	—	—	—	Not Occupied	27	—	—	—	—	—
28	0.5	VT/YE	5985	VI	—	Accessory Wake-Up Serial Data	28	0.5	VT/YE	5985	VII	—
29	1	BK	150	II	—	Ground 1	29	1	BK	150	IX	—

X116 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
30	0.5	BU/ GY	3660	VI	—	Exhaust Gas Temperature Sensor 5 Signal	30	0.5	BU/ GY	3660	VII	—
31	0.5	BK/ VT	3661	VI	—	Exhaust Gas Temperature Sensor 5 Low Reference	31	0.5	BK/ VT	3661	VII	—
32	0.5	BU/ BK	7493	VI	—	High Speed GMLAN Serial Data [+] 3	32	0.5	BU/ BK	7493	VII	—
33	0.5	WH	7494	VI	—	High Speed GMLAN Serial Data [-] 3	33	0.5	WH	7494	VII	—
34 - 35	—	—	—	—	—	Not Occupied	34 - 35	—	—	—	—	—
36	0.5	WH/ BU	5986	VI	—	Serial Data Communication Enable	36	0.5	WH/ BU	5986	VII	—
37	0.5	BK/ GY	2379	VI	—	Object Sensor Low Reference	37	0.5	BK/ GY	2379	VII	—
38	—	—	—	—	—	Not Occupied	38	—	—	—	—	—
39	0.5	BU	2500	II	—	High Speed GMLAN Serial Data [+] 1	39	0.5	BU	2500	IX	—
40	0.5	WH	2501	VI	—	High Speed GMLAN Serial Data [-] 1	40	0.5	WH	2501	VII	—
41	0.5	BK/ GN	3657	VI	—	Exhaust Gas Temperature Sensor 3 Low Reference	41	0.5	BK/ GN	3657	VII	—
42	0.5	GY/ GN	5378	VI	—	Exhaust Gas Temperature Sensor 3 Signal	42	0.5	GY/ GN	5378	VII	—
43	0.5	VT/ BN	3658	VI	—	Exhaust Gas Temperature Sensor 4 Signal	43	0.5	VT/ BN	3658	VII	—
44	0.5	BK/ GY	3659	VI	—	Exhaust Gas Temperature Sensor 4 Low Reference	44	0.5	BK/ GY	3659	VII	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.75	BN/ BU	2926	VI	—	Exhaust Aftertreatment Fuel Injector High Control	46	0.75	BN/ BU	2926	VII	—
47	0.75	VT/ BN	2927	VI	—	Exhaust Aftertreatment Fuel Injector Low Control	47	0.75	VT/ BN	2927	VII	—
48	2.5	VT/ GN	355	III	—	—	48	2.5	VT/ GN	355	X	—

X130 Engine Harness to Camshaft Position Sensor Jumper Harness



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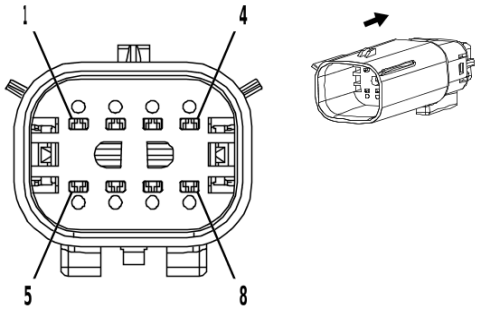


2667653

Connector Part Information

Harness Type: Engine
OEM Connector: 35063116
Service Connector: 19366859
Description: 8-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	No Tool Required	No Tool Required

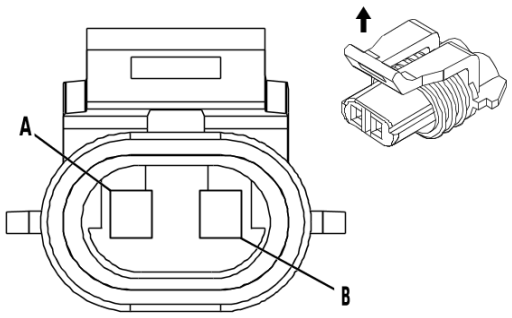
X130 Engine Harness to Camshaft Position Sensor Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY/BU	5300	I	—	Intake Camshaft Position Sensor 1 Voltage Reference	1	0.5	GY/BU	5300	II	—
2	0.5	BK/GN	5301	I	—	Intake Camshaft Position Sensor Low Reference 1	2	0.5	BK/GN	5301	II	—
3	0.5	YE/VT	5275	I	—	Intake Camshaft Position Sensor 1	3	0.5	YE/VT	5275	II	—
4	0.5	BU	179	I	—	Engine Oil Pump Control	4	0.5	BU	179	II	—
5	0.5	VT/BN	5284	I	—	Intake Camshaft Position Actuator Solenoid Valve 1	5	0.5	VT/BN	5284	II	—
6	0.5	BK/BN	6753	I	—	Camshaft Position Actuator Solenoid Valve W Low Reference	6	0.5	BK/BN	6753	II	—

X130 Engine Harness to Camshaft Position Sensor Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	VT/ BU	5293	I	—	Powertrain Main Relay Fused Supply 4	7	0.5	VT/ BU	5293	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X141 Instrument Panel Harness to Brake Fluid Level Switch Harness



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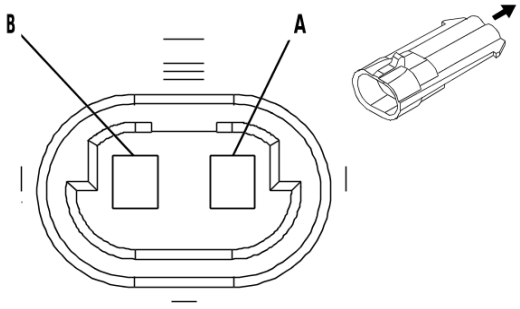


605500

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 12162343
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (GY)

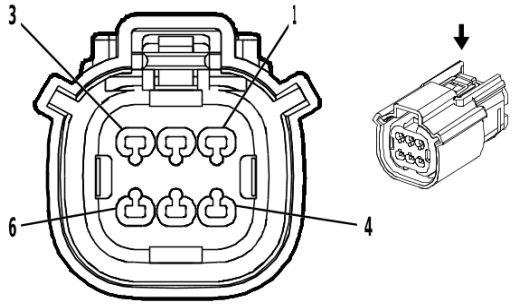
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X141 Instrument Panel Harness to Brake Fluid Level Switch Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	TN/WH	33	I	—	Brake Warning Indicator Control	A	0.5	TN/WH	33	II	—
B	0.5	BK/WH	351	I	—	Ground 3	B	0.5	BK/WH	351	II	—

X142 Engine Harness to Cooling Fan Clutch Jumper Harness



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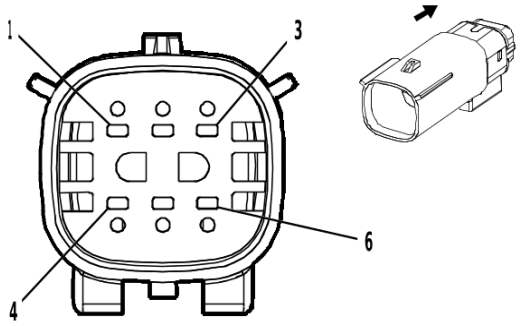


1986159

Connector Part Information

Harness Type: Engine
OEM Connector: 13609714
Service Connector: 13578533
Description: 6-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Cooling Fan Clutch Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M

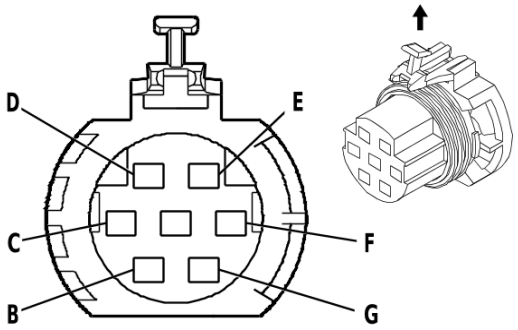
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X142 Engine Harness to Cooling Fan Clutch Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	WH	2368	I	—	Cooling Fan Control	2	0.5	WH	2368	II	—
3	0.5	GY/RD	2365	I	—	Cooling Fan Speed Sensor 5V Reference	3	0.5	GY/RD	2365	II	—
4	0.5	BU/VT	2364	I	—	Cooling Fan Speed Signal	4	0.5	BU/VT	2364	II	—
5	0.5	BK/BN	6141	I	—	Cooling Fan Speed Sensor Low Reference	5	0.5	BK/BN	6141	II	—
6	0.75	BK	550	I	—	Ground 5	6	0.75	BK	550	II	—

X150 Instrument Panel Harness to Forward Lamp Harness



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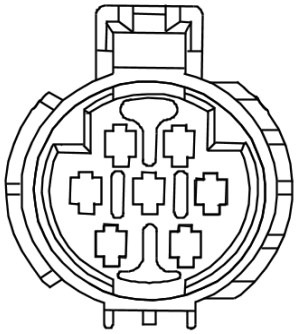


258231

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12110751
Service Connector: 12110751
Description: 7-Way F 280 Metri-Pack Flexlock Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12110753
Service Connector: 12110753
Description: 7-Way M 280 Metri-Pack Series, Sealed (BK)

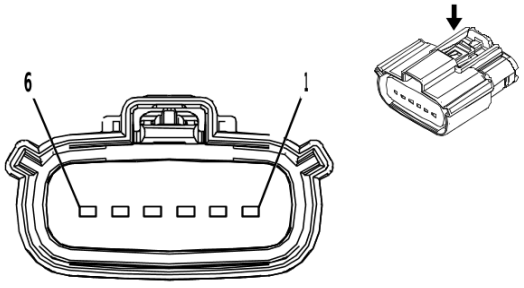
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X150 Instrument Panel Harness to Forward Lamp Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	PK/BK	109	I	—	Hood Ajar Switch Signal	A	0.5	PK/BK	109	II	—
B	0.5	PU	5531	I	—	Hood Closed Switch Signal	B	0.5	PU	5531	II	—
C	0.5	BU/GY	636	I	UFA	Ambient Air Temperature Sensor Signal	C	0.5	BU/GY	636	II	UFA
D	0.5	BK/BU	61	I	UFA	Ambient Air Temperature Sensor Low Reference	D	0.5	BK/BU	61	II	UFA
E	0.5	BK/YE	407	I	—	Sensor Low Reference	E	0.5	BK/YE	407	II	—
F	0.5	GN/BK	735	I	—	Ambient Air Temperature Sensor Signal 2	F	0.5	GN/BK	735	II	—
G	—	—	—	—	—	Not Occupied	G	—	—	—	—	—

X155 Engine Harness to Engine Oil Pressure Sensor Jumper Harness



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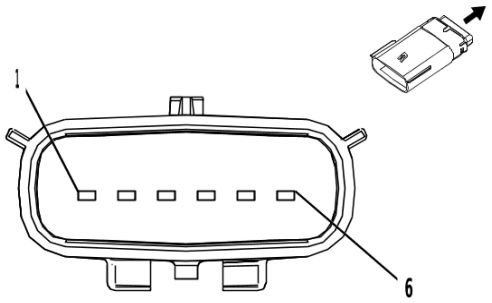


3277908

Connector Part Information

Harness Type: Engine
OEM Connector: 33124755
Service Connector: 19368640
Description: 6-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Engine Oil Pressure Sensor Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M

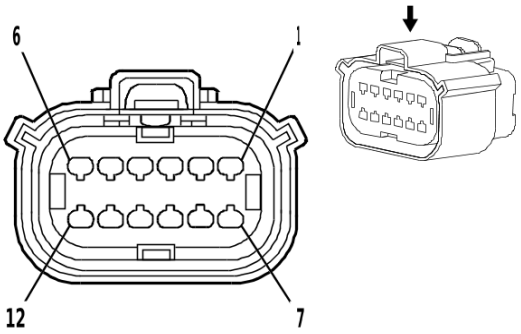
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	No Tool Required	No Tool Required

X155 Engine Harness to Engine Oil Pressure Sensor Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU	410	I	—	Engine Coolant Temperature Sensor Signal	1	0.5	BU	410	II	—
2	0.5	BK/YE	548	I	—	Engine Control Sensors Low Reference 1	2	0.5	BK/YE	548	II	—
3	0.5	YE/BN	331	I	—	Oil Pressure Sensor Signal	3	0.5	YE/BN	331	II	—
4	0.5	BK/YE	548	I	—	Engine Control Sensors Low Reference 1	4	0.5	BK/YE	548	II	—
5	0.5	WH/RD	480	I	—	Engine Control Vehicle Sensors 5 Volt Reference 1	5	0.5	WH/RD	480	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X160 Engine Harness to Fuel Injector Harness (L8T)



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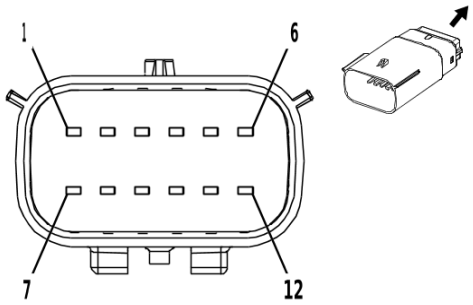


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13595088
Service Connector: 19352907
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	Not Required	No Tool Required	No Tool Required

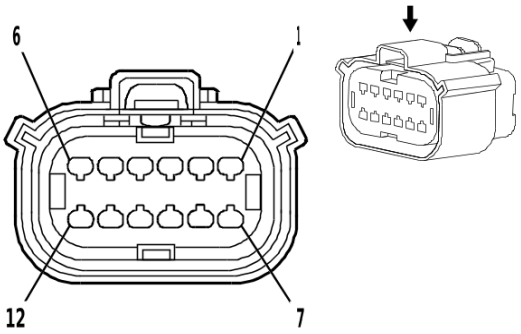
X160 Engine Harness to Fuel Injector Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BN/WH	4901	I	—	Direct Fuel Injector High Voltage Supply Cylinder 1	1	0.75	BN/WH	4901	II	—
2	0.75	GN/GY	4903	I	—	Direct Fuel Injector High Voltage Supply Cylinder 3	2	0.75	GN/GY	4903	II	—
3	0.75	GN/WH	4905	I	—	Direct Fuel Injector High Voltage Supply Cylinder 5	3	0.75	GN/WH	4905	II	—
4	0.75	WH/YE	4907	I	—	Direct Fuel Injector High Voltage Supply Cylinder 7	4	0.75	WH/YE	4907	II	—
5	0.75	BN	4801	I	—	Direct Fuel Injector High Voltage Control Cylinder 1	5	0.75	BN	4801	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X160 Engine Harness to Fuel Injector Harness (L8T) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.75	GN	4803	I	—	Direct Fuel Injector High Voltage Control Cylinder 3	7	0.75	GN	4803	II	—
8	0.75	WH/ GN	4805	I	—	Direct Fuel Injector High Voltage Control Cylinder 5	8	0.75	WH/ GN	4805	II	—
9	0.75	YE/ GY	4807	I	—	Direct Fuel Injector High Voltage Control Cylinder 7	9	0.75	YE/ GY	4807	II	—
10	0.5	WH/ RD	480	I	—	Engine Control Vehicle Sensors 5 Volt Reference 1	10	0.5	WH/ RD	480	II	—
11	0.5	BU/ WH	2918	I	—	Fuel Rail Pressure Sensor Signal	11	0.5	BU/ WH	2918	II	—
12	0.5	BK/ YE	548	I	—	Engine Control Sensors Low Reference 1	12	0.5	BK/ YE	548	II	—

X160 Engine Harness to Fuel Injector Harness (LV1)



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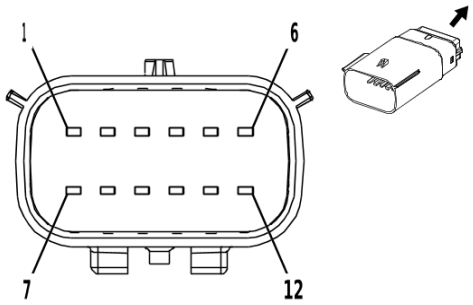


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13609715
Service Connector: 19352907
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	Not Required	No Tool Required	No Tool Required

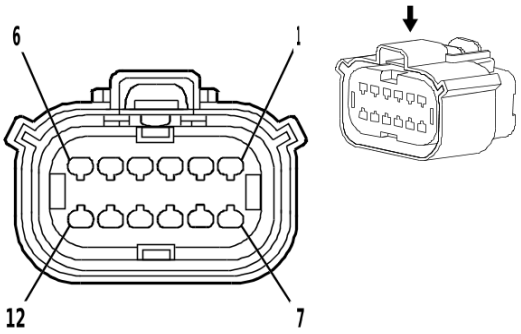
X160 Engine Harness to Fuel Injector Harness (LV1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BN/WH	4901	I	—	Direct Fuel Injector High Voltage Supply Cylinder 1	2	0.75	BN/WH	4901	II	—
3	0.75	GN/GY	4903	I	—	Direct Fuel Injector High Voltage Supply Cylinder 3	3	0.75	GN/GY	4903	II	—
4	0.75	GN/WH	4905	I	—	Direct Fuel Injector High Voltage Supply Cylinder 5	4	0.75	GN/WH	4905	II	—
5	0.75	BN	4801	I	—	Direct Fuel Injector High Voltage Control Cylinder 1	5	0.75	BN	4801	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	0.75	GN	4803	I	—	Direct Fuel Injector High Voltage Control Cylinder 3	8	0.75	GN	4803	II	—

X160 Engine Harness to Fuel Injector Harness (LV1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.75	WH/ GN	4805	I	—	Direct Fuel Injector High Voltage Control Cylinder 5	9	0.75	WH/ GN	4805	II	—
10	0.5	WH/ RD	480	I	—	Engine Control Vehicle Sensors 5 Volt Reference 1	10	0.5	WH/ RD	480	II	—
11	0.5	BU/ WH	2918	I	—	Fuel Rail Pressure Sensor Signal	11	0.5	BU/ WH	2918	II	—
12	0.5	BK/ YE	548	I	—	Engine Control Sensors Low Reference 1	12	0.5	BK/ YE	548	II	—

X161 Engine Harness to Fuel Injector Harness (L8T)



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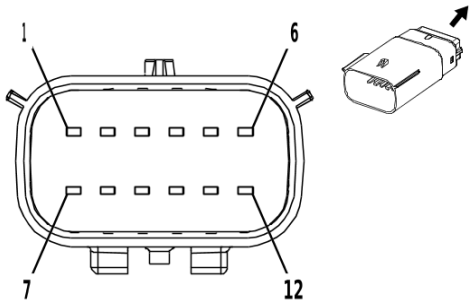


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13922706
Service Connector: 19352907
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	Not Required	No Tool Required	No Tool Required

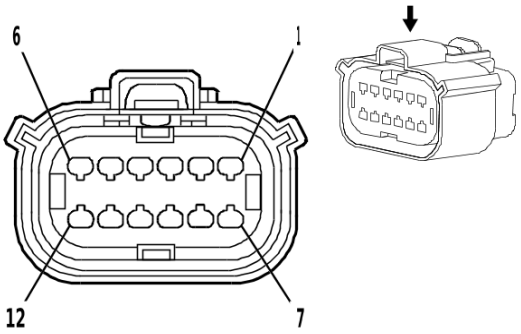
X161 Engine Harness to Fuel Injector Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BU/GY	4902	I	—	Direct Fuel Injector High Voltage Supply Cylinder 2	1	0.75	BU/GY	4902	II	—
2	0.75	BU/WH	4904	I	—	Direct Fuel Injector High Voltage Supply Cylinder 4	2	0.75	BU/WH	4904	II	—
3	0.75	VT/GY	4906	I	—	Direct Fuel Injector High Voltage Supply Cylinder 6	3	0.75	VT/GY	4906	II	—
4	0.75	GY/WH	4908	I	—	Direct Fuel Injector High Voltage Supply Cylinder 8	4	0.75	GY/WH	4908	II	—
5	0.75	BU	4802	I	—	Direct Fuel Injector High Voltage Control Cylinder 2	5	0.75	BU	4802	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—

X161 Engine Harness to Fuel Injector Harness (L8T) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.75	GY/ BU	4804	I	—	Direct Fuel Injector High Voltage Control Cylinder 4	8	0.75	GY/ BU	4804	II	—
9	0.75	VT/ GN	4806	I	—	Direct Fuel Injector High Voltage Control Cylinder 6	9	0.75	VT/ GN	4806	II	—
10	0.75	GY	4808	I	—	Direct Fuel Injector High Voltage Control Cylinder 8	10	0.75	GY	4808	II	—
11	0.75	VT/ BK	7300	I	—	High Pressure Fuel Pump Low Control	11	0.75	VT/ BK	7300	II	—
12	0.75	YE	7301	I	—	High Pressure Fuel Pump High Control	12	0.75	YE	7301	II	—

X161 Engine Harness to Fuel Injector Harness (LV1)



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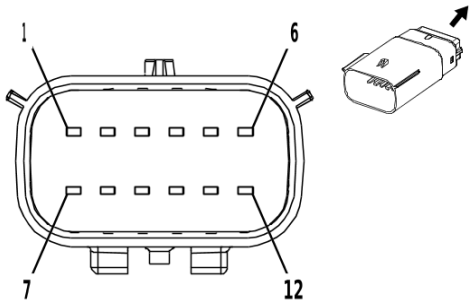


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13863397
Service Connector: 19352907
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	Not Required	No Tool Required	No Tool Required

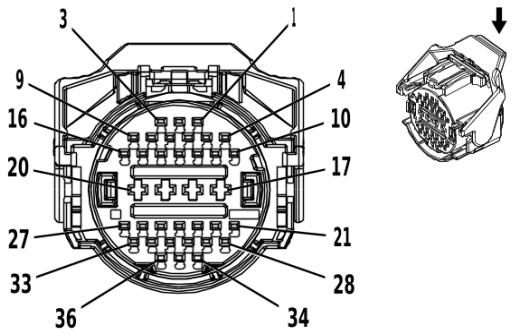
X161 Engine Harness to Fuel Injector Harness (LV1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BU/GY	4902	I	—	Direct Fuel Injector High Voltage Supply Cylinder 2	2	0.75	BU/GY	4902	II	—
3	0.75	BU/WH	4904	I	—	Direct Fuel Injector High Voltage Supply Cylinder 4	3	0.75	BU/WH	4904	II	—
4	0.75	VT/GY	4906	I	—	Direct Fuel Injector High Voltage Supply Cylinder 6	4	0.75	VT/GY	4906	II	—
5	0.75	BU	4802	I	—	Direct Fuel Injector High Voltage Control Cylinder 2	5	0.75	BU	4802	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	0.75	GY/BU	4804	I	—	Direct Fuel Injector High Voltage Control Cylinder 4	8	0.75	GY/BU	4804	II	—

X161 Engine Harness to Fuel Injector Harness (LV1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.75	VT/ GN	4806	I	—	Direct Fuel Injector High Voltage Control Cylinder 6	9	0.75	VT/ GN	4806	II	—
10	0.75	VT/ BK	7300	I	—	High Pressure Fuel Pump Low Control	10	0.75	VT/ BK	7300	II	—
11	0.75	YE	7301	I	—	High Pressure Fuel Pump High Control	11	0.75	YE	7301	II	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—

X175 Engine Harness to Transmission Jumper Harness



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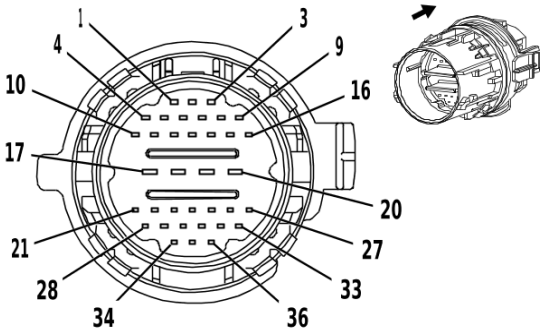


3977661

Connector Part Information

Harness Type: Engine
OEM Connector: 15504573
Service Connector: 19329922
Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Transmission Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 36-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19119772	J-35616-35 (VT)	J-38125-215A
II	19300445	J-35616-16 (LT GN)	J-38125-11A
III	Not Required	J-35616-17 (LT GN)	No Tool Required

X175 Engine Harness to Transmission Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN/WH	6380	II	—	Torque Converter Clutch Enable Solenoid Valve A Control	1	0.5	GN/WH	6380	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.5	VT/WH	422	II	—	Torque Converter Clutch Solenoid Valve Control	3	0.5	VT/WH	422	III	—
4	0.5	GN/WH	1530	II	—	Transmission Line Pressure Control Solenoid Valve Control	4	0.5	GN/WH	1530	III	—
5	0.5	BN	6400	II	—	Clutch Solenoid Valve A Control	5	0.5	BN	6400	III	—

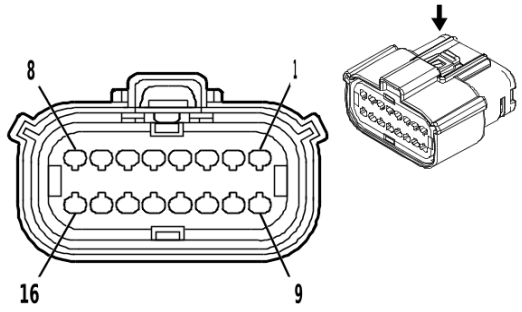
X175 Engine Harness to Transmission Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	BU	6401	II	—	Clutch Solenoid Valve B Control	6	0.5	BU	6401	III	—
7	0.5	YE/ BN	6210	II	—	Torque Converter Clutch Enable Solenoid Valve B Control	7	0.5	YE/ BN	6210	III	—
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.5	GY	6402	II	—	Clutch Solenoid Valve C Control	10	0.5	GY	6402	III	—
11	0.5	BK/ BN	586	II	—	Transmission Fluid Temperature Sensor Low Reference	11	0.5	BK/ BN	586	III	—
12	0.5	BN/ WH	585	II	—	Transmission Fluid Temperature Sensor Signal	12	0.5	BN/ WH	585	III	—
13	0.5	WH	4508	II	—	Transmission Clutch G Control	13	0.5	WH	4508	III	—
14	0.5	WH/ BU	4507	II	—	Transmission Clutch H Control	14	0.5	WH/ BU	4507	III	—
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
18	0.5	GN/ GY	6387	I	—	Transmission High Side Driver 1 Control	18	0.5	GN/ GY	6387	III	—
19	0.75	GY/ BN	6388	I	—	Transmission High Side Driver 2 Control	19	0.75	GY/ BN	6388	III	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.5	GN/ YE	3337	II	—	Transmission Internal Mode Switch Mode Control Y	21	0.5	GN/ YE	3337	III	—
22	0.5	BU/ WH	3338	II	—	Transmission Internal Mode Switch Mode Control X	22	0.5	BU/ WH	3338	III	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	GY/ BU	6358	II	—	Output Speed Signal	24	0.5	GY/ BU	6358	III	—

X175 Engine Harness to Transmission Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
25	0.5	YE/GN	4170	II	—	Transmission Output Shaft Speed Sensor Circuit 9V Reference	25	0.5	YE/GN	4170	III	—
26	0.5	GN/YE	6353	II	—	Input Speed Signal	26	0.5	GN/YE	6353	III	—
27	0.5	YE/BU	4171	II	—	Transmission Input Shaft Speed Sensor Circuit 9V Reference	27	0.5	YE/BU	4171	III	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	0.5 0.5	WH/RD WH/RD	480 596	II II	LV1+M5U LWN +MQD	Engine Control Vehicle Sensors 5 Volt Reference 1 5 Volt Reference 2	29	0.5 0.5	WH/RD WH/RD	480 596	III III	LV1+M5U LWN+MQD
30	0.5 0.5	BK/GY BK/GY	3927 626	II II	LV1+M5U LWN +MQD	Transmission Internal Mode Switch Feedback Signal Engine Control Vehicle Sensors Low Reference 1	30	0.5 0.5	BK/GY BK/GY	3927 626	III III	LV1+M5U LWN+MQD
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	0.5	GN/VT	4510	II	—	Transmission Intermediate Speed Signal	32	0.5	GN/VT	4510	III	—
33 - 36	—	—	—	—	—	Not Occupied	33 - 36	—	—	—	—	—

X185 Instrument Panel Harness to Chassis Harness



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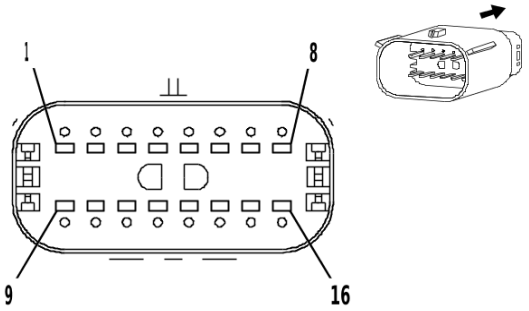


2548390

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13778557
Service Connector: 13584788
Description: 16-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33372790
Service Connector: 19369662
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300432	J-35616-2A (GY)	J-38125-217
II	19119395	J-35616-3 (GY)	J-38125-217

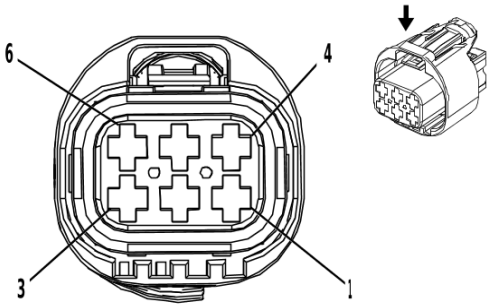
X185 Instrument Panel Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	RD/GN	3140	I	—	Secondary Fused Battery Positive Voltage 31	1	0.5	RD/GN	3140	II	—
2	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	2	0.5	GN	5060	II	—
3 - 7	—	—	—	—	—	Not Occupied	3 - 7	—	—	—	—	—
8	0.5	BU/YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	8	0.5	BU/YE	6105	II	—
9	0.5	GY/YE	5853	I	—	Driver Side Side Object Detection LED Signal 1	9	0.5	GY/YE	5853	II	—
10	0.5	GY	5861	I	—	Passenger Side Object Detection LED Signal 1	10	0.5	GY	5861	II	—
11 - 14	—	—	—	—	—	Not Occupied	11 - 14	—	—	—	—	—

X185 Instrument Panel Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
15	0.5	GN/ BN	2087	I	—	Multi-axis Acceleration Sensor Supply Voltage	15	0.5	GN/ BN	2087	II	—
16	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	16	0.5	WH	6106	II	—

X190 Accessory Harness to Accessory Power Fuse Block Rear Extension Harness



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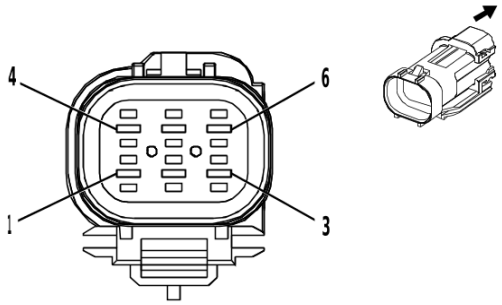

2042939

Connector Part Information

Harness Type: Accessory
OEM Connector: 10865192
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 2.8 Junior Power Timer Series, Sealed (BK)

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Extension
OEM Connector: 10865189
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X190 Accessory Harness to Accessory Power Fuse Block Rear Extension Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	L-BU	6842	I	—	Auxiliary Device Relay 1 Control	1	0.5	BK/ L-BU	6842	II	—
2	2.5	L-GN	6839	I	—	Auxiliary Device 1 Switched Voltage	2	2.5	L-GN	6839	II	—
3	0.5	D-BU	6843	I	—	Auxiliary Device Relay 2 Control	3	0.5	D-BU	6843	II	—
4	2.5	L-GN	6840	I	—	Auxiliary Device 2 Switched Voltage	4	2.5	L-GN	6840	II	—
5	1	RD/ WH	5440	I	—	Secondary Fused Battery Positive Voltage 54	5	1	RD/ WH	5440	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X200 Steering Wheel Harness to Instrument Panel Harness

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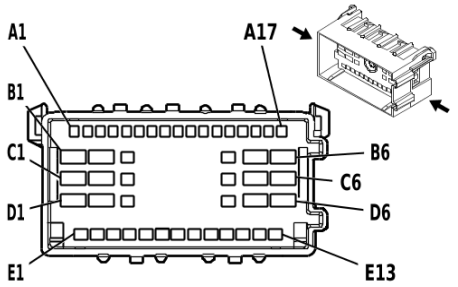


510556

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15492579
Service Connector: 88988982
Description: 48-Way M 150, 280, 630 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	13505668	J-35616-3 (GY)	J-38125-12A
III	13575463	J-35616-3 (GY)	J-38125-12A
IV	13575715	J-35616-5 (PU)	J-38125-11A
V	19330180	J-35616-43 (RD)	J-38125-11A

X200 Steering Wheel Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D1	0.35	TN/ BK	6009	I	—	Windshield Wiper Switch Low Reference	D1	0.35	TN/ BK	6009	V	—
A11	0.35	GN	6818	I	—	Steering Wheel Controls Signal 1	A11	0.35	GN	6818	III	—
A13	0.35	GN/ WH	7158	I	—	Cruise Control Indicator Dimming Signal	A13	0.35	GN/ WH	7158	III	—
A15	0.35	BN	6136	I	—	Control	A15	0.35	BN	6136	III	—
A17	0.35	GY	1884	I	—	Cruise Control Set/Coast/ Resume/ Accelerate Switch Signal	A17	0.35	GY	1884	III	—
A3	0.35	PK	1444	I	—	Steering Wheel Controls 12 Volt Reference	A3	0.35	PK	1444	III	—
A4	0.35	PU	5526	I	—	Tap Up/Down Switch Signal	A4	0.35	PU	5526	III	—
A6	0.5	GN/ BN	2087	I	—	Multi-axis Acceleration Sensor Supply Voltage	A6	0.5	GN/ BN	2087	II	—

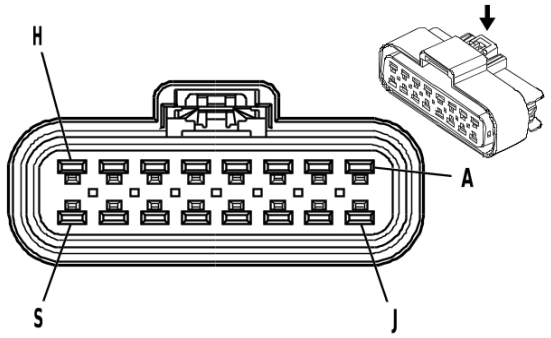
X200 Steering Wheel Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A9	0.35	PK	3	I	—	Run/Crank Ignition 1 Voltage	A9	0.35	PK	3	III	—
B1	0.35	RD/WH	540	I	—	Secondary Fused Battery Positive Voltage 5	B1	0.35	RD/WH	540	V	—
B3	0.35	WH	111	I	—	Hazard Warning Switch Signal	B3	0.35	WH	111	IV	—
B6	0.35	PK	1020	I	—	Off/Run/Crank Ignition Voltage 2	B6	0.35	PK	1020	V	—
C1	0.35	WH	530	I	—	Off/Run/Crank Ignition Voltage	C1	0.35	WH	530	V	—
A1	0.35	TN	28	I	—	Horn Relay Control	A1	0.35	TN	28	III	—
C6	0.35	BN	4	I	—	Accessory Voltage	C6	0.35	BN	4	V	—
E9	0.35	TN	664	I	—	Hazard Warning Switch Right Turn Signal	E9	0.35	TN	664	IV	—
D3	0.35	YE	525	I	—	High Beam Select Switch Low Beam Signal	D3	0.35	YE	525	IV	—
D4	0.5	TN/WH	816	I	—	Brake Transmission Shift Interlock Solenoid Actuator Control	D4	0.5	TN/WH	816	IV	—
D6	0.35	PK	94	I	—	Windshield Washer Switch Signal	D6	0.35	PK	94	V	—
E1	0.5	BK	350	I	—	Ground 3	E1	0.5	BK	350	IV	—
E11	0.35	BU	1714	I	—	Windshield Wiper Switch Low Signal	E11	0.35	BU	1714	IV	—
E12	0.35	GN	1715	I	—	Windshield Wiper Switch High Signal	E12	0.35	GN	1715	IV	—
E13	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	E13	0.35	GN	5060	IV	—
E3	0.5	BK/WH	351	I	—	Ground 3	E3	0.5	BK/WH	351	IV	—
E4	0.5	GN/YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	E4	0.5	BU/YE	6105	IV	—
E5	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	E5	0.5	WH	6106	IV	—
E6	0.5	BU/YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	E6	0.5	BU/YE	6105	IV	—
E7	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	E7	0.5	WH	6106	IV	—

X200 Steering Wheel Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
E8	0.35	GN	663	I	—	Hazard Warning Switch Left Turn Signal	E8	0.35	GN	663	IV	—
C3	0.35	YE	307	I	—	Headlamp Switch Flash Signal	C3	0.35	YE	307	IV	—

X202 Instrument Panel Harness to Engine Harness



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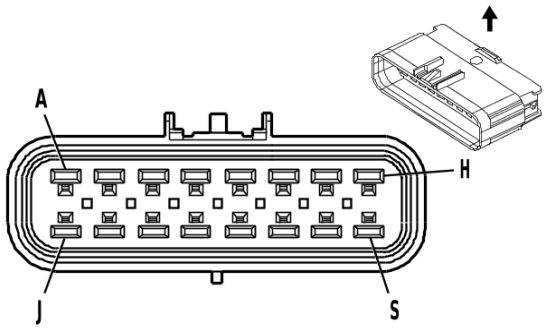


847270

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15326666
Service Connector: 15326666
Description: 16-Way F 280 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 15326667
Service Connector: 88986347
Description: 16-Way M 280 GT Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580824	J-35616-4A (PU)	J-38125-553
II	13575353	J-35616-5 (PU)	J-38125-215A

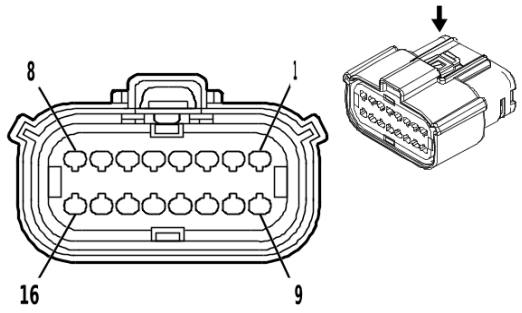
X202 Instrument Panel Harness to Engine Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	YE/ VT	2378	I	—	Right Rear Outer Parking Assist Sensor Signal	A	0.5	YE/ VT	2378	II	—
B	0.5	YE/ WH	2377	I	—	Right Rear Middle Parking Assist Sensor Signal	B	0.5	YE/ WH	2377	II	—
C	0.5	RD/ WH	840	I	—	Secondary Fused Battery Positive Voltage 8	C	0.5	RD/ BU	840	II	—
D - E	—	—	—	—	—	Not Occupied	D - E	—	—	—	—	—
F	—	—	—	—	—	Engine Control Vehicle Sensors Low Reference 1	F	0.5	BK/ GY	626	II	—
G	0.5	BN/ WH	2374	I	—	Object Sensor Supply Voltage	G	0.5	BN/ WH	2374	II	—

X202 Instrument Panel Harness to Engine Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
H	0.5	YE	2375	I	—	Left Rear Outer Parking Assist Sensor Signal	H	0.5	YE	2375	II	—
J	0.5	BK/ GY	2379	I	—	Object Sensor Low Reference	J	0.5	BK/ GY	2379	II	—
K - L	—	—	—	—	—	Not Occupied	K - L	—	—	—	—	—
M	0.5	RD/ WH	4892	I	—	Auxiliary Battery Relay Control	M	0.5	RD/ WH	4892	II	—
N	—	—	—	—	—	Not Occupied	N	—	—	—	—	—
P	—	—	—	—	—	Brake Position Sensor Signal	P	0.5	WH/ GN	5380	II	—
R	0.5	WH	5359	I	—	Engine Control Sensors 5 Volt Reference 1 Brake Apply Sensor Voltage Reference	R	0.5 0.5	BU/ RD WH	460 5359	II II	(L8T +C60)/LV1 LWN
S	0.5	YE/ BU	2376	I	—	Left Rear Middle Parking Assist Sensor Signal	S	0.5	YE/ BU	2376	II	—

X204 Body Harness to Headliner Harness



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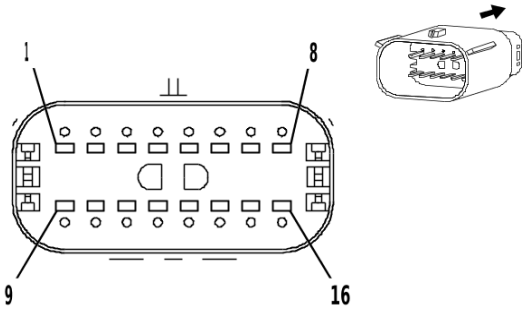


2548390

Connector Part Information

Harness Type: Body
OEM Connector: 13778557
Service Connector: 13584788
Description: 16-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Headliner
OEM Connector: 33372790
Service Connector: 19369662
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300432	J-35616-2A (GY)	J-38125-217
II	19119395	J-35616-3 (GY)	J-38125-217
III	19119842	J-35616-3 (GY)	J-38125-217

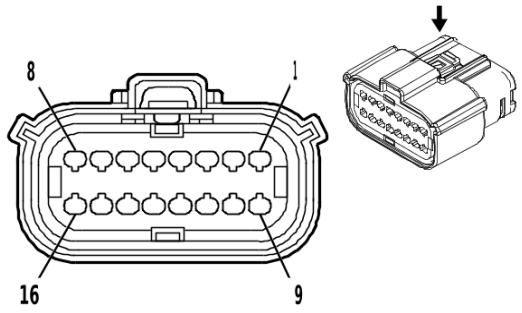
X204 Body Harness to Headliner Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35 0.5	BU BU	7641 7641	I I	— —	Frontview Camera 2 Signal [+] Frontview Camera 2 Signal [+]	1	0.5 0.5	BU BU	7641 7641	II III	— —
2	0.35 0.5	BU BU	7642 7642	I I	— —	Frontview Camera 2 Signal [-] Frontview Camera 2 Signal [-]	2	0.5 0.5	WH BU	7642 7642	II III	— —
3	0.5	BK	6799	I	—	Camera Shield Ground Camera Shield Ground	3	0.5 0.5	BK BK	6799 6799	III II	— —
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage 2	5	0.5	VT/WH	239	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X204 Body Harness to Headliner Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.8	GN	654	I	—	Cellular Telephone Microphone Low Reference	7	0.8	GN	654	III	—
8	0.8	GY	655	I	—	Cellular Telephone Microphone Signal	8	0.8	GY	655	III	—
9	0.5	GN	24	I	—	Backup Lamp Control	9	0.5	GN/ WH	24	II	—
10	0.5	BK	1850	I	—	Ground 18	10	0.5	BK	1850	II	—
11	0.5	GY/ WH	3153	I	—	Lane Departure Warning Disable Switch Signal	11	0.5	GY/ WH	3153	II	—
12	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	12	0.5	GN	5060	II	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	WH	3152	I	—	Lane Departure Warning Indicator Control	14	0.5	WH	3152	II	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	0.5	RD/ GN	3140	I	—	Secondary Fused Battery Positive Voltage 31	16	0.5	RD/ GN	3140	II	—

X205 Headliner Harness to Body Harness



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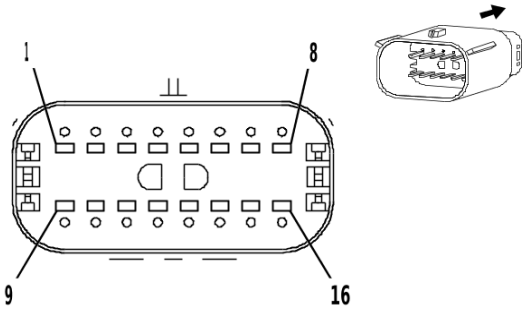


2548390

Connector Part Information

Harness Type: Headliner
OEM Connector: 13778557
Service Connector: 13584788
Description: 16-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 33372790
Service Connector: 19369662
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300432	J-35616-2A (GY)	J-38125-217
II	19119395	J-35616-3 (GY)	J-38125-217
III	19119842	J-35616-3 (GY)	J-38125-217

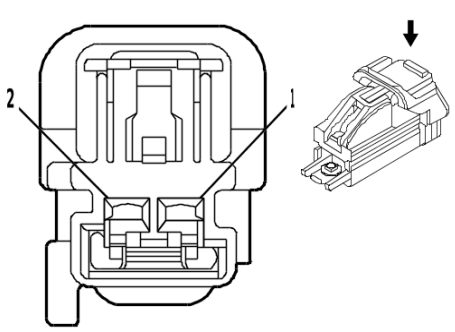
X205 Headliner Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BN	441	I	—	Run Ignition 3 Voltage 4	1	0.35	BN	441	III	—
2	0.5	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	2	0.35	OG	1925	III	—
3	0.5	PK/BK	5265	I	—	Auxiliary HVAC Rear Control Signal	3	0.5	PK/BK	5265	II	—
4	0.35	GY	2599	I	—	Rear Mode Door Actuator Signal	4	0.35	GY	2599	III	—
5	0.5	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	5	0.35	WH	1924	III	—
6	0.35	BN	341	I	—	Run Ignition 3 Voltage 3	6	0.35	BN	341	III	—
7	1 0.8	BK BK	1850 1850	I I	(C69/DH6)-YF1 DH6+ (-C69/YF1)	Ground 18 Ground 18	7	1	BK	1850	III	—

X205 Headliner Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	BU/WH	149	I	—	Courtesy Lamp Control	8	0.5	BU/WH	149	II	—
9	0.5	BK/WH	351	I	—	Ground 3	9	0.35	BK/WH	351	III	—
10	0.5	BN	5263	I	—	Auxiliary HVAC Rear Temperature Signal	10	0.5	BN	5263	II	—
11	0.35	GN	6134	I	—	Body Control Module LIN Bus 3	11	0.35	GN	6134	III	—
12	0.35	OG	2775	I	—	Rear Air Temperature Door Actuator Control	12	0.35	OG	2775	III	—
13	0.5	PU/WH	5264	I	—	Auxiliary HVAC Rear Mode Signal	13	0.5	PU/WH	5264	II	—
14	0.5	BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	14	0.35	BU	1926	III	—
15	0.35	BN/WH	230	I	—	Instrument Panel Lamp Dimming Control	15	0.35	BN/WH	230	III	—
16	0.8	OG	1732	I	—	Control Module 12V Reference 3	16	0.8	OG	1732	III	—

X206 Instrument Panel Harness to Instrument Panel Harness



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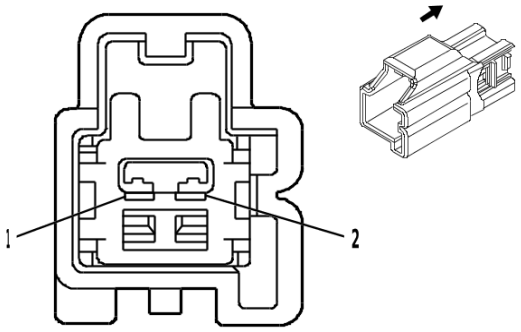


1853532

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846794
Service Connector: 19367525
Description: 2-Way F 1.5 YESC Series (L-GY)

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846798
Service Connector: 19367526
Description: 2-Way M 1.5 Series (L-GY)

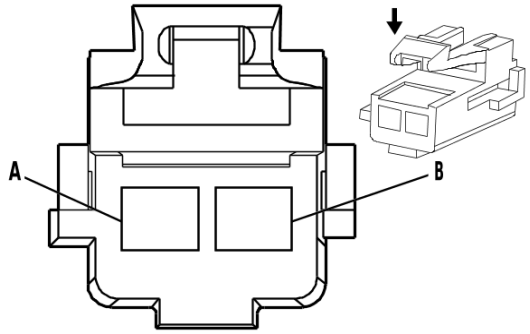
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X206 Instrument Panel Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	L-BU	20	I	—	Stop Lamp Control	1	0.5	L-BU	20	II	—
2	0.5	BK	350	I	—	Ground 3	2	0.5	BK	350	II	—

X220 Instrument Panel Harness to Park Brake Switch Jumper Harness



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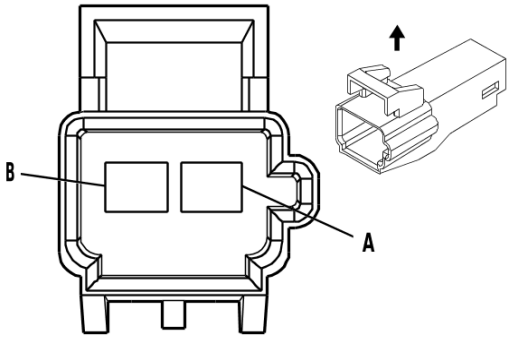


788072

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12129082
Service Connector: 15305896
Description: 2-Way F 280 Metri-Pack Flexlock Series (GY)

Connector Part Information

Harness Type: Park Brake Switch Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

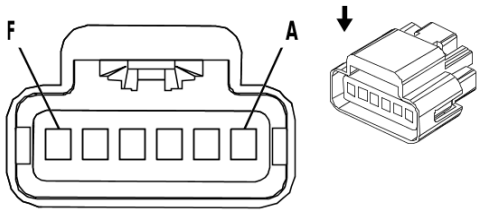
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X220 Instrument Panel Harness to Park Brake Switch Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	BU	1134	I	—	Park Brake Switch Signal	A	0.35	BU	1134	II	—
B	—	—	—	—	—	Not Occupied	B	—	—	—	—	—

X225 Accelerator Pedal Position Sensor Harness to Instrument Panel Harness



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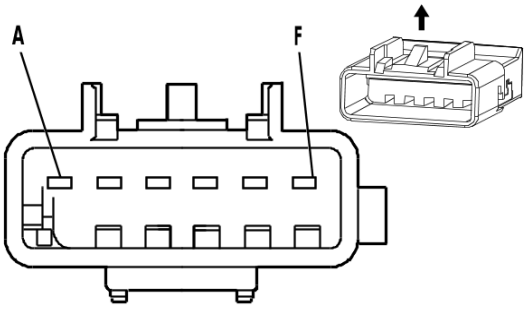


1464340

Connector Part Information

Harness Type: Accelerator Pedal Position Sensor
OEM Connector: 13667186
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 GT FBT Series (BK)

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15332142
Service Connector: 19368863
Description: 6-Way M 150 GT Series (BK)

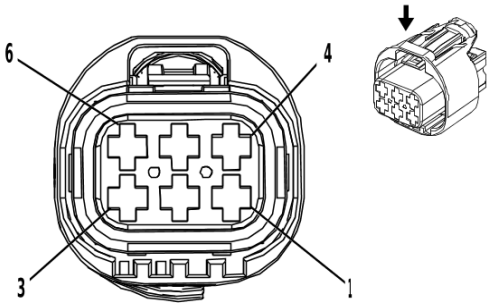
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X225 Accelerator Pedal Position Sensor Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	TN	1274	I	—	Accelerator Pedal Position 5V Reference 2	A	0.35	BN/ RD	1274	II	—
B	0.35	WH/ BK	1164	I	—	Accelerator Pedal Position 5 Volt Reference 1	B	0.35	WH/ RD	1164	II	—
C	0.35	D-BU	1161	I	—	Accelerator Pedal Position Signal 1	C	0.35	YE/ WH	1161	II	—
D	0.35	BN	1271	I	—	Accelerator Pedal Position Low Reference 1	D	0.35	BK/ BU	1271	II	—
E	0.35	PU	1272	I	—	Accelerator Pedal Position Low Reference 2	E	0.35	BK/ VT	1272	II	—
F	0.35	L-BU	1162	I	—	Accelerator Pedal Position Signal 2	F	0.35	L-GN/ WH	1162	II	—

X291 Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness



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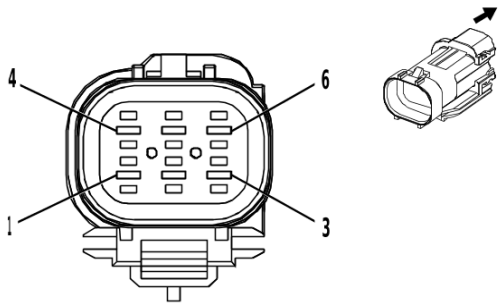


2042939

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Extension
OEM Connector: 10865192
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 2.8 Junior Power Timer Series, Sealed (BK)

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Extension
OEM Connector: 10865189
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M 2.8 Series, Sealed (BK)

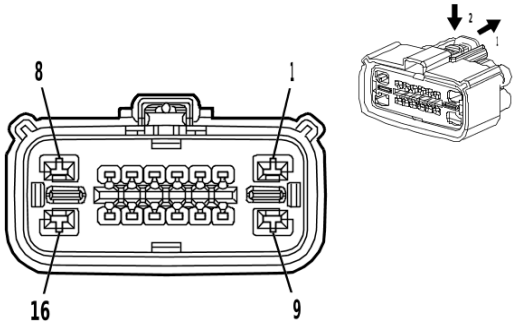
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X291 Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	L-GN	6840	I	—	Auxiliary Device 2 Switched Voltage	1	2.5	L-GN	6840	II	—
2	2.5	L-GN	6839	I	—	Auxiliary Device 1 Switched Voltage	2	2.5	L-GN	6839	II	—
3	0.5	D-BU	6843	I	—	Auxiliary Device Relay 2 Control	3	0.5	D-BU	6843	II	—
4	0.5	BK/ L-BU	6842	I	—	Auxiliary Device Relay 1 Control	4	0.5	BK/ L-BU	6842	II	—
5	1	RD/ WH	5440	I	—	Secondary Fused Battery Positive Voltage 54	5	1	RD/ WH	5440	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X306 Body Harness to Passenger Seat Harness



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4283035

Connector Part Information

Harness Type: Body
OEM Connector: 33320906
Service Connector: 19368738
Description: 16-Way F 1.5, 2.8 Series, Sealed (YE)

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	13578908	J-35616-35 (VT)	J-38125-12A
III	Not Required	No Tool Required	No Tool Required

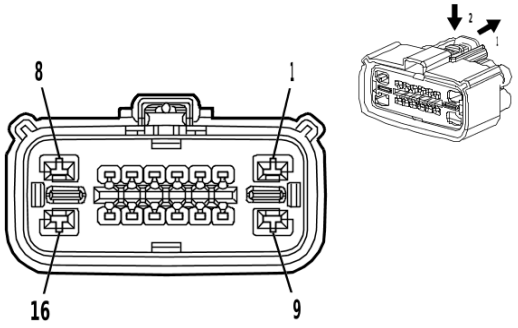
X306 Body Harness to Passenger Seat Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	BK	1850	II	—	Ground 18	1	3	BK	1850	III	—
2 - 4	—	—	—	—	—	Not Occupied	2 - 4	—	—	—	—	—
5	0.5	GN	2116	I	—	Passenger Seat Belt Pretensioner High Control	5	0.5	GN	2116	III	—
6	0.5	OG	2117	I	—	Passenger Seat Belt Pretensioner Low Control	6	0.5	OG	2117	III	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—
9	3	RD/WH	3540	II	—	Secondary Fused Battery Positive Voltage 35	9	3	RD/WH	3540	III	—
10	0.5	GN	2136	I	—	Right Front Seat Side Air Bag Low Control	10	0.5	GN	2136	III	—
11	0.5	TN/WH	2135	I	—	Right Front Seat Side Air Bag High Control	11	0.5	TN/WH	2135	III	—

X306 Body Harness to Passenger Seat Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

X307 Body Harness to Driver Seat Harness



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4283035

Connector Part Information

Harness Type: Body
OEM Connector: 33320906
Service Connector: 19368738
Description: 16-Way F 1.5, 2.8 Series, Sealed (YE)

Connector Part Information

Harness Type: Driver Seat
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-14 (GN)	J-38125-217
II	13578908	J-35616-35 (VT)	J-38125-12A
III	19300432	J-35616-2A (GY)	J-38125-217
IV	Not Required	No Tool Required	No Tool Required

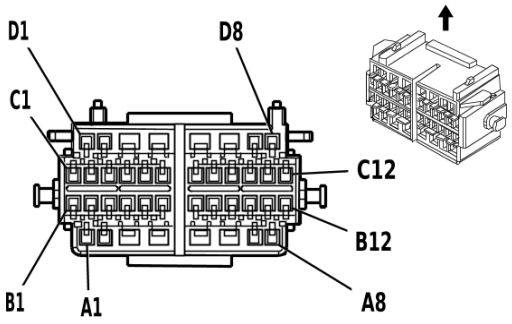
X307 Body Harness to Driver Seat Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	RD/WH	3540	II	—	Secondary Fused Battery Positive Voltage 35	1	3	RD/WH	3540	IV	—
2	0.5	PK	5057	III	—	Seat Position Switch Low Reference	2	0.5	PK	5057	IV	—
3	0.5	TN/WH	238	III	—	Driver Seat Belt Switch Signal	3	0.5	TN/WH	238	IV	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	TN/WH	2118	I	—	Driver Seat Belt Pretensioner High Control	5	0.5	TN/WH	2118	IV	—
6	0.5	OG/BK	2119	I	—	Driver Seat Belt Pretensioner Low Control	6	0.5	OG/BK	2119	IV	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—
9	3	BK	450	II	—	Ground 4	9	3	BK	450	IV	—

X307 Body Harness to Driver Seat Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.5	YE/ BK	2138	I	—	Left Front Seat Side Air Bag Low Control	10	0.5	YE/ BK	2138	IV	—
11	0.5	BN	2137	I	—	Left Front Seat Side Air Bag High Control	11	0.5	BN	2137	IV	—
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

X318 Instrument Panel Harness to Body Harness



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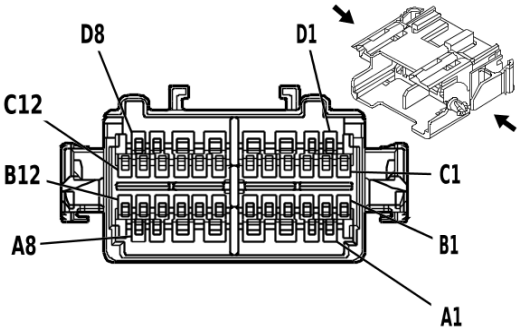


851471

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15448130
Service Connector: 89046970
Description: 40-Way F 150, 280 GT Series (L-GY)

Connector Part Information

Harness Type: Body
OEM Connector: 15416977
Service Connector: 19331377
Description: 40-Way M 150, 280 GT Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	13575500	J-35616-3 (GY)	J-38125-215A
IV	13575505	J-35616-5 (PU)	J-38125-215A
V	13575507	J-35616-5 (PU)	J-38125-215A
VI	13576358	J-35616-5 (PU)	J-38125-215A

X318 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.8	OG	1853	I	—	Right Front Midrange Speaker [+] Control	A1	0.8	OG	1853	III	—
A2	0.8	GN	1953	I	—	Right Front Midrange Speaker [-] Control	A2	0.8	GN	1953	III	—
A3	0.5	BK/WH	1751	II	—	Ground 17	A3	0.5	BK/WH	1751	VI	—
A4	0.5	TN/BK	371	II	—	Passenger Supplemental Inflatable Restraint Disable Switch Signal	A4	0.5	TN/BK	371	VI	—
A5	0.5	BU/YE	6105	II	—	High Speed GMLAN Serial Data [+] 2	A5	0.5	BU/YE	6105	VI	—
A6	0.5	WH	6106	II	—	High Speed GMLAN Serial Data [-] 2	A6	0.5	WH	6106	VI	—

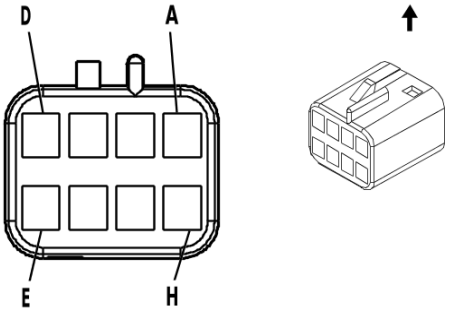
X318 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A7	1	RD/WH	440	I	—	Secondary Fused Battery Positive Voltage 4	A7	1	RD/WH	440	III	—
A8	0.35	YE/BK	1181	I	—	Right Rear Door Open Switch Signal	A8	0.35	YE/BK	1181	III	—
B1	0.8	BU	1320	I	—	Center High Mounted Stop Lamp Control 2	B1	0.8	BU	1320	III	—
B2	—	—	—	—	—	Not Occupied	B2	—	—	—	—	—
B3	0.8	TN	1855	I	—	Right Rear Midrange Speaker [+] Control	B3	1	TN	1855	III	—
B4	0.8	OG	1955	I	—	Right Rear Midrange Speaker [-] Control	B4	1	OG	1955	III	—
B5	—	—	—	—	—	Not Occupied	B5	—	—	—	—	—
B6	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	B6	0.5	GN	5060	III	—
B7	0.5	BU/WH	6619	I	—	Front Middle Impact Discriminating Sensor Low Reference	B7	0.5	BU/WH	6619	III	—
B8	0.5	BN/WH	6618	I	—	Front Middle Impact Discriminating Sensor Signal	B8	0.5	BN/WH	6618	III	—
B9	0.35	WH	3152	I	—	Lane Departure Warning Indicator Control	B9	0.5	WH	3152	III	—
B10	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	B10	0.35	GN	5060	III	—
B11	0.35	GN	6134	I	—	Body Control Module LIN Bus 3	B11	0.35	GN	6134	III	—
B12	0.35	GY/WH	3153	I	—	Lane Departure Warning Disable Switch Signal	B12	0.5	GY/WH	3153	III	—
C1	0.8	GN	654	I	—	Cellular Telephone Microphone Low Reference	C1	0.8	GN	654	III	—
C2	0.35	PK	1139	I	—	Run/Crank Ignition 1 Voltage 11	C2	0.35	PK	1139	III	—
C3	0.8	TN	1859	I	—	Left Rear Midrange Speaker [+] Control	C3	1	TN	1859	III	—

X318 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
C4	0.8	WH	1959	I	—	Left Rear Midrange Speaker [-] Control	C4	1	WH	1959	III	—
C5	0.8	GY	655	I	—	Cellular Telephone Microphone Signal	C5	0.8	GY	655	III	—
C6	—	—	—	—	—	Not Occupied	C6	—	—	—	—	—
C7	0.35	GN	5926	I	—	Rear Body Opening Open Switch Signal	C7	0.35	GN	5926	III	—
C8	0.35	PK/BK	1303	I	—	Liftgate Ajar Switch Signal 1	C8	0.35	PK/BK	1303	III	—
C9	0.35	TN/WH	746	I	—	Right Front Door Ajar Switch Signal	C9	0.35	TN/WH	746	III	—
C10	0.35	GN	1177	I	—	Right Front Door Open Switch Signal	C10	0.35	GN	1177	III	—
C11	0.5	TN	126	I	—	Left Front Door Open Switch Signal	C11	0.35	TN	126	III	—
C12	0.35	GY/BK	745	I	—	Left Front Door Ajar Switch Signal	C12	0.35	GY/BK	745	III	—
D1	0.8	BU	1857	I	—	Left Front Midrange Speaker [+] Control	D1	0.8	BU	1857	III	—
D2	0.8	BU	1957	I	—	Left Front Midrange Speaker [-] Control	D2	0.8	BU	1957	III	—
D3	0.5 0.8	OG OG	1732 1732	II II	— —	Control Module 12V Reference 3 Control Module 12V Reference 3	D3	0.8	OG	1732	V	—
D4	0.5	PK	353	II	—	Passenger Supplemental Inflatable Restraint Suppression Indicator Control	D4	0.5	PK	353	VI	—
D5	0.5	PK/BK	780	II	—	Driver Door Lock Switch Lock Signal	D5	0.35	PK/BK	780	IV	—
D6	0.5	OG/BK	781	II	—	Driver Door Lock Switch Unlock Signal	D6	0.35	OG/BK	781	IV	—
D7	0.35	BU	244	I	—	Passenger Door Lock Switch Lock Control	D7	0.35	BU	244	III	—
D8	0.35	BU	245	I	—	Passenger Door Lock Switch Unlock Control	D8	0.35	BU	245	III	—

X319 Auxiliary Heater Front Harness to Body Harness



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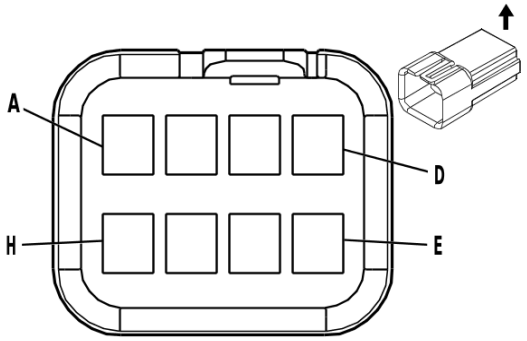


62434

Connector Part Information

Harness Type: Auxiliary Heater Front
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12045688
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

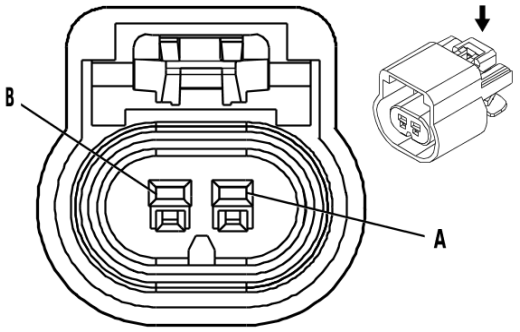
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X319 Auxiliary Heater Front Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	A	0.35	WH	1924	II	—
B	0.35	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	B	0.35	OG	1925	II	—
C	0.35	D-BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	C	0.35	D-BU	1926	II	—
D	0.35	BN/ WH	230	I	—	Instrument Panel Lamp Dimming Control	D	0.35	BN/ WH	230	II	—
E	0.35	BK	450	I	—	Ground 4	E	0.35	BK	450	II	—
F - H	—	—	—	—	—	Not Occupied	F - H	—	—	—	—	—

X323 Air Bag Jumper Harness to Body Harness



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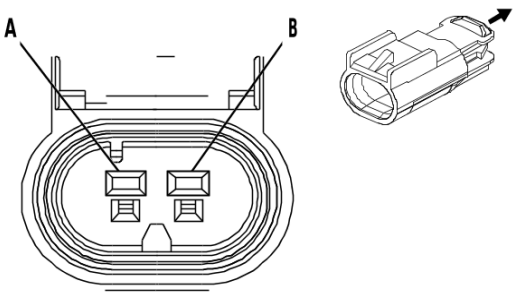


681875

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13510099
Service Connector: 13580103
Description: 2-Way M 150 GT Series, Sealed (BK)

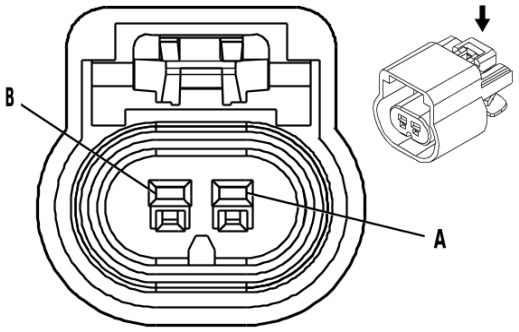
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X323 Air Bag Jumper Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	GY/ BK	6621	I	—	Left Middle Side Impact Sensor Low Reference	A	0.5	GY/ BK	6621	II	—
B	0.5	D-GN/ WH	6620	I	—	Left Middle Side Impact Sensor Signal	B	0.5	D-GN/ WH	6620	II	—

X324 Air Bag Jumper Harness to Body Harness



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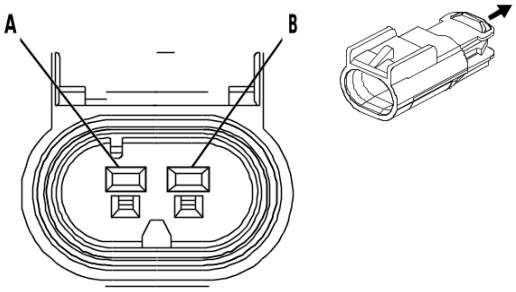


681875

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13510099
Service Connector: 13580103
Description: 2-Way M 150 GT Series, Sealed (BK)

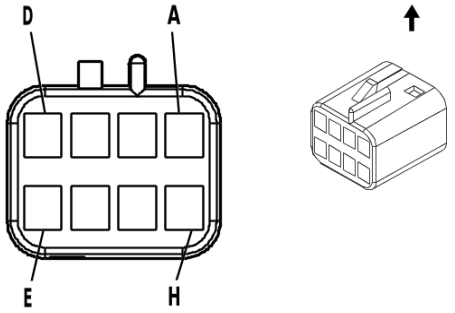
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X324 Air Bag Jumper Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	L-GN/WH	6625	I	—	Right Middle Side Impact Sensor Low Reference	A	0.5	L-GN/WH	6625	II	—
B	0.5	L-BU/BK	6624	I	—	Right Middle Side Impact Sensor Signal	B	0.5	L-BU/BK	6624	II	—

X329 Instrument Panel Harness to Body Harness



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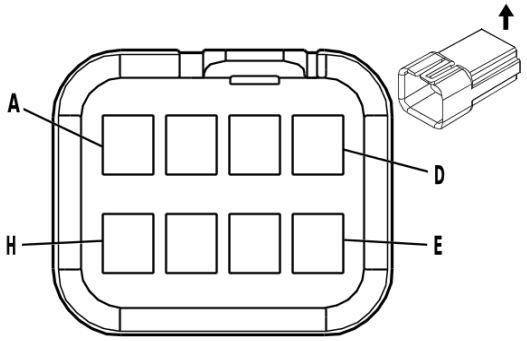


62434

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047886
Service Connector: 13584485
Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12089526
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

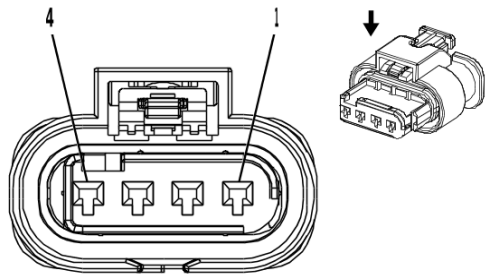
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

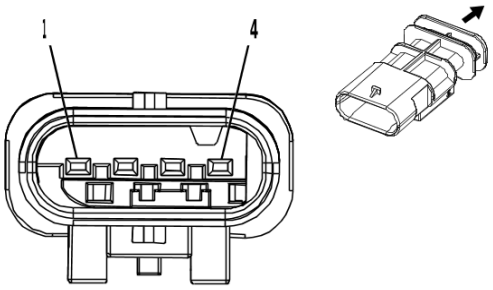
X329 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A - C	—	—	—	—	—	Not Occupied	A - C	—	—	—	—	—
D	0.5	L-GN	24	I	—	Backup Lamp Control	D	0.5	L-GN	24	II	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage 2	E	0.5	PK	239	II	—
F	0.5	L-GN	24	I	—	Backup Lamp Control	F	0.5	L-GN	24	II	—
G - H	—	—	—	—	—	Not Occupied	G - H	—	—	—	—	—

X330 Instrument Panel Harness to Body Harness



2684560



2684557

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13854531
Service Connector: 13586137
Description: 4-Way F 1.2 Series, Sealed (BK with YE Cover)

Connector Part Information

Harness Type: Body
OEM Connector: 13854529
Service Connector: 19299698
Description: 4-Way M 1.2 Series, Sealed (YE)

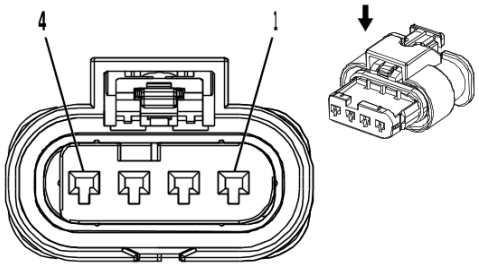
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required

X330 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	TN	3021	I	—	Steering Wheel Air Bag Stage 1 High Control	1	0.5	TN	3021	II	—
2	0.5	BN	3020	I	—	Steering Wheel Air Bag Stage 1 Low Control	2	0.5	BN	3020	II	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

X331 Instrument Panel Harness to Body Harness



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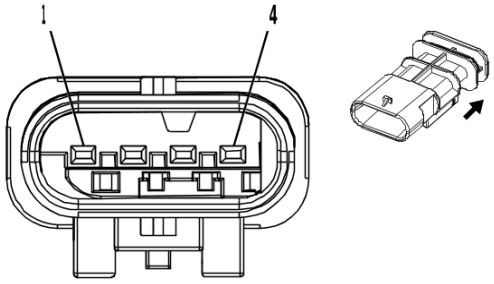


2684563

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13854532
Service Connector: 19368563
Description: 4-Way F 1.2 Series, Sealed (YE)

Connector Part Information

Harness Type: Body
OEM Connector: 13854530
Service Connector: 13586576
Description: 4-Way M 1.2 Series, Sealed (YE)

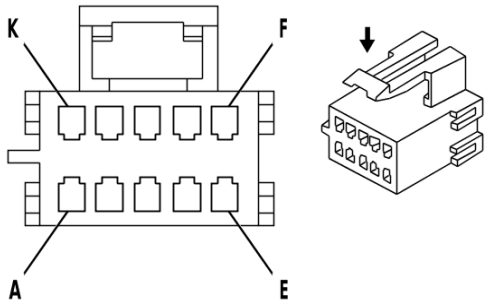
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-16 (LT GN)	No Tool Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required

X331 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE	3025	I	—	Passenger Instrument Panel Air Bag Stage 1 High Control	1	0.5	YE	3025	II	—
2	0.5	OG	3024	I	—	Passenger Instrument Panel Air Bag Stage 1 Low Control	2	0.5	OG	3024	II	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

X400 Right Rear Cargo Door Harness to Body Harness



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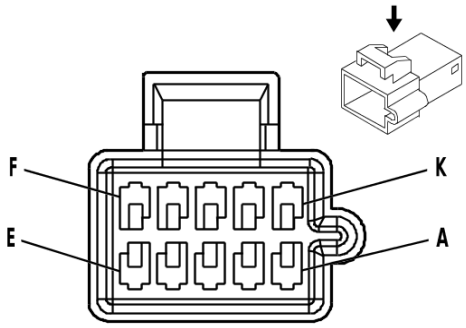


808703

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 15324054
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15324758
Service Connector: 19179279
Description: 10-Way M 150 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	13505668	J-35616-3 (GY)	J-38125-12A
III	13575463	J-35616-3 (GY)	J-38125-12A

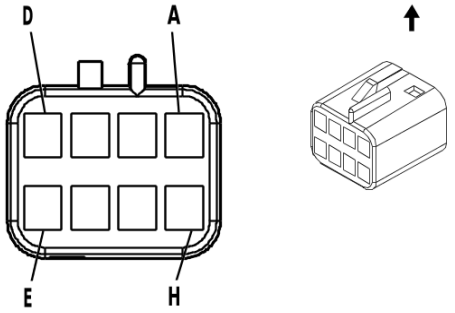
X400 Right Rear Cargo Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	TN	1855	I	—	Right Rear Midrange Speaker [+] Control	A	1	TN	1855	II	—
B	1	OG	1955	I	—	Right Rear Midrange Speaker [-] Control	B	1	OG	1955	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.35	BK/WH	1051	I	—	Ground 10	D	1	BK/WH	1051	II	—
E	0.35	D-BU	245	I	—	Passenger Door Lock Switch Unlock Control	E	0.35	D-BU	245	III	—
F	1	GY	295	I	—	Door Lock Actuator Lock Control	F	1	GY	295	II	—
G	1	TN/BK	1095	I	—	Right Rear Door Lock Actuator Unlock Control	G	1	TN/BK	1095	II	—

X400 Right Rear Cargo Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
H	0.35	L-GN	5926	I	—	Rear Body Opening Open Switch Signal	H	0.35	L-GN	5926	III	—
J	0.35	PK/ BK	1303	I	—	Liftgate Ajar Switch Signal 1	J	0.35	PK/ BK	1303	III	—
K	0.35	L-BU	244	I	—	Passenger Door Lock Switch Lock Control	K	0.35	L-BU	244	III	—

X403 Right Rear Cargo Door Harness to Body Harness (-Cutaway)



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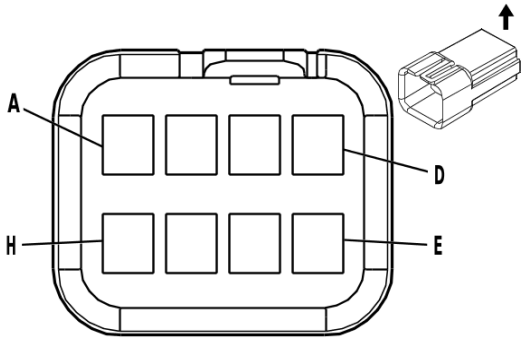


62434

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12045688
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

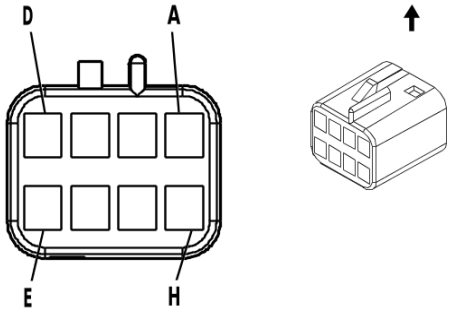
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X403 Right Rear Cargo Door Harness to Body Harness (-Cutaway)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	YE	7641	I	—	Frontview Camera 2 Signal [+]	A	0.5	D-BU	7641	II	—
B	0.5	L-BU	7642	I	—	Frontview Camera 2 Signal [-]	B	0.5	L-BU	7642	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.5	BK	351	I	—	Ground 3	D	0.35	BK/ WH	351	II	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage 2	E	0.5	PK	239	II	—
F	0.5	L-GN	24	I	—	Backup Lamp Control	F	0.5	L-GN	24	II	—
G	—	—	—	—	—	Not Occupied	G	—	—	—	—	—
H	0.5	Bare	6799	I	—	Camera Shield Ground	H	0.5	Bare	6799	II	—

X403 Rearview Camera Harness to Body Harness (Cutaway)



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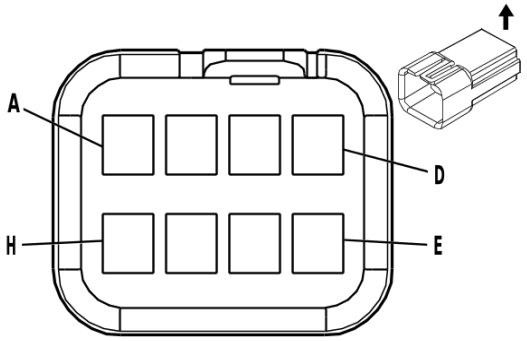


62434

Connector Part Information

Harness Type: Rearview Camera
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12045688
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

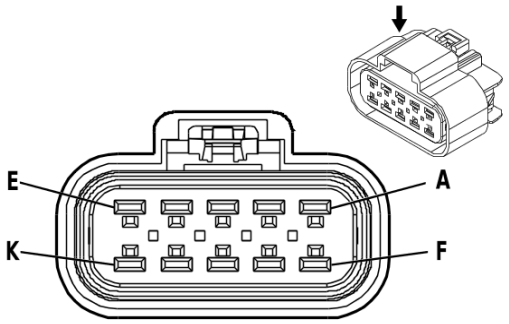
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X403 Rearview Camera Harness to Body Harness (Cutaway)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	WH	7641	I	—	Frontview Camera 2 Signal [+]	A	0.35 0.5	BU BU	7641 7641	II II	— —
						Frontview Camera 2 Signal [+]						
B	0.5	BU	7642	I	—	Frontview Camera 2 Signal [-]	B	0.35 0.5	BU BU	7642 7642	II II	— —
						Frontview Camera 2 Signal [-]						
C - D	—	—	—	—	—	Not Occupied	C - D	—	—	—	—	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage 2	E	0.5	PK	239	II	—
F	0.5	GN	24	I	—	Backup Lamp Control	F	0.5	GN	24	II	—
G	0.5	BK/ WH	351	I	—	Ground 3	G	0.35	BK/ WH	351	II	—
H	0.5	Bare	6799	I	—	Camera Shield Ground	H	0.5	Bare	6799	II	—

X405 Chassis Harness to Chassis Harness



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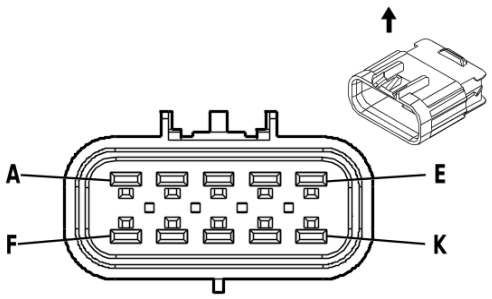


655819

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326660
Service Connector: 88986262
Description: 10-Way F 280 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326661
Service Connector: 88986245
Description: 10-Way M 280 GT Series, Sealed (BK)

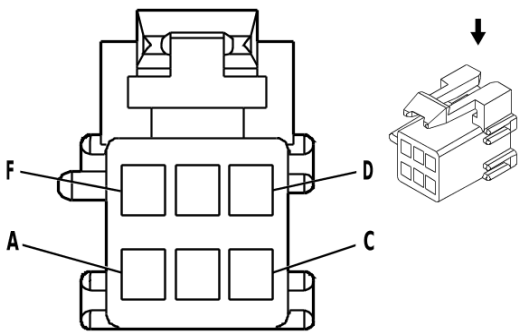
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580824	J-35616-4A (PU)	J-38125-215A
II	13580826	J-35616-5 (PU)	J-38125-215A
III	19368626	J-35616-5 (PU)	J-38125-215A

X405 Chassis Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A - B	—	—	—	—	—	Not Occupied	A - B	—	—	—	—	—
C	0.8	BU	1320	I	—	Center High Mounted Stop Lamp Control 2	C	0.8	BU	1320	II	—
D	—	—	—	—	—	Left Rear Turn Signal Lamp Control	D	1	YE	618	II	—
E						Right Rear Turn Signal Lamp Control	E	1 1	GN GN	619 619	II III	— —
F	—	—	—	—	—	Trailer Park Lamp Control	F	1	BN	2109	II	—
G	—	—	—	—	—	Ground 1	G	1	BK	150	II	—
H	—	—	—	—	—	Trailer Backup Lamp Control	H	1	GN	1624	II	—
J	—	—	—	—	—	Not Occupied	J	—	—	—	—	—
K	—	—	—	—	—	Courtesy Lamp Control	K	0.8	BU/ WH	149	II	—

X407 Auxiliary HVAC Harness to Body Harness



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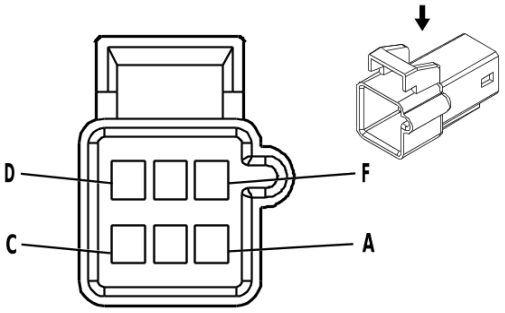


40425

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12064762
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 Metri-Pack Series (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 12064763
Service Connector: 12101876
Description: 6-Way M 150 Metri-Pack Series (GY)

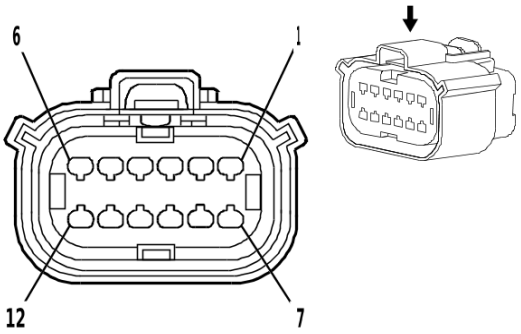
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X407 Auxiliary HVAC Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	OG	2775	I	—	Rear Air Temperature Door Actuator Control	A	0.35	OG	2775	II	—
B	0.35	D-BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	B	0.35	D-BU	1926	II	—
C	0.35	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	C	0.35	WH	1924	II	—
D	0.35	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	D	0.35	OG	1925	II	—
E	0.35	BN	341	I	—	Run Ignition 3 Voltage 3	E	0.35	BN	341	II	—
F	0.35	GY	2599	I	—	Rear Mode Door Actuator Signal	F	0.35	GY	2599	II	—

X408 Rear Fascia Harness to Chassis Harness



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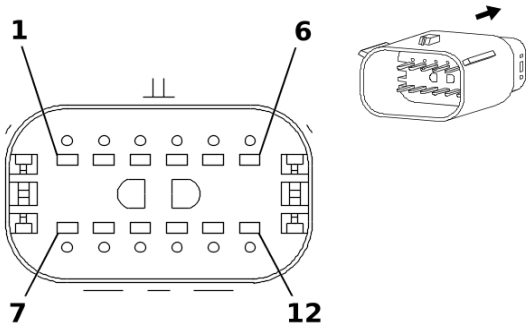


1825167

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13653762
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33369138
Service Connector: 19369242
Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	19119395	J-35616-3 (GY)	J-38125-217

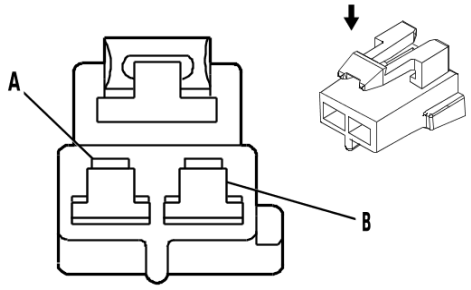
X408 Rear Fascia Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE/WH	2377	I	—	Right Rear Middle Parking Assist Sensor Signal	1	0.5	YE/WH	2377	II	—
2	0.5	YE/VT	2378	I	—	Right Rear Outer Parking Assist Sensor Signal	2	0.5	YE/VT	2378	II	—
3	0.5	GY	2379	I	—	Object Sensor Low Reference	3	—	—	—	—	—
4	0.5	BN/WH	2374	I	—	Object Sensor Supply Voltage	4	0.5	BN/WH	2374	II	—
5	0.5	YE	2375	I	—	Left Rear Outer Parking Assist Sensor Signal	5	0.5	YE	2375	II	—

X408 Rear Fascia Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	YE/ BU	2376	I	—	Left Rear Middle Parking Assist Sensor Signal	6	0.5	YE/ BU	2376	II	—
7	0.5	BK	2150	I	—	Ground 21	7	0.5	BK	2150	II	—
8	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	8	0.5	GN	5060	II	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	GY/ YE	5853	I	—	Driver Side Side Object Detection LED Signal 1	10	0.5	GY/ YE	5853	II	—
11	0.5	GY	5861	I	—	Passenger Side Object Detection LED Signal 1	11	0.5	GY	5861	II	—
12	0.5	RD/ GN	3140	I	—	Secondary Fused Battery Positive Voltage 31	12	0.5	RD/ GN	3140	II	—

X409 Auxiliary HVAC Harness to Body Harness



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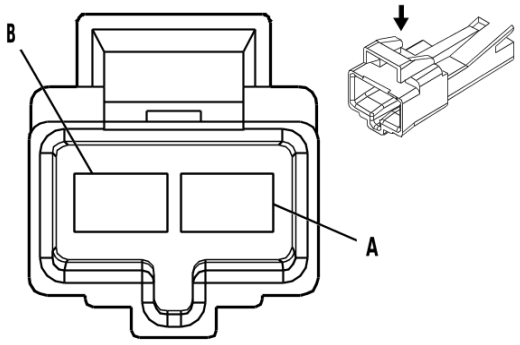


38284

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12064749
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12064750
Service Connector: 19368866
Description: 2-Way M 480 Metri-Pack Series (BK)

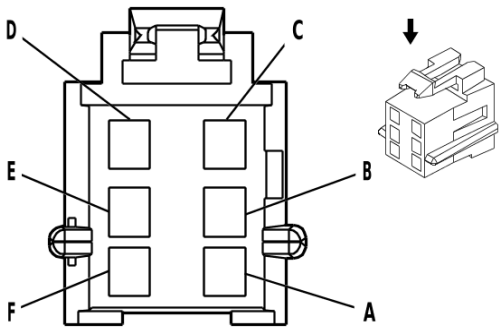
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-40 (BU)	No Tool Required
II	Not Required	J-35616-41 (BU)	No Tool Required

X409 Auxiliary HVAC Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	RD/WH	1740	I	—	Secondary Fused Battery Positive Voltage 17	A	5	RD/WH	1740	II	—
B	5	BK	850	I	—	Ground 4 Ground 8	B	5 5	BK BK	450 850	II II	— —

X410 Tail Lamp Assembly - Left Harness to Body Harness



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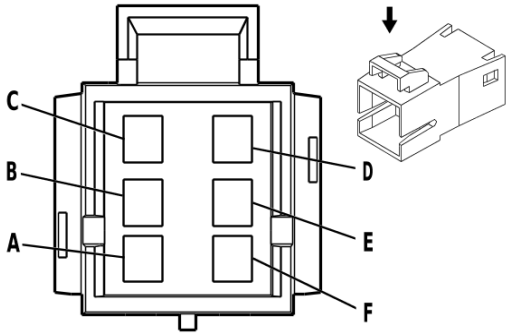


39689

Connector Part Information

Harness Type: Tail Lamp Assembly - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series (BK)

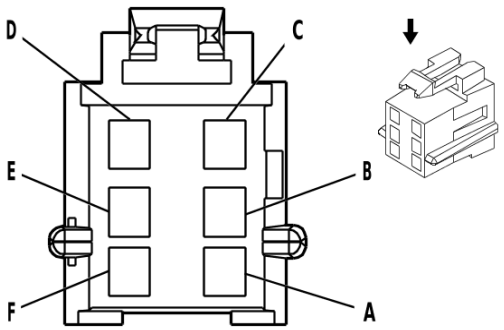
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X410 Tail Lamp Assembly - Left Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
F	0.8	GN	24	I	—	Backup Lamp Control	F	0.8	GN	24	II	—
D	0.8	BK	850	I	—	Ground 8	D	0.8	BK	850	II	—
B	1	YE	618	I	—	Left Rear Turn Signal Lamp Control	B	1	YE	618	II	—
A	0.5	BN	2509	I	—	Left Rear Park Lamp Control	A	0.5	BN	2509	II	—
C - E	—	—	—	—	—	Not Occupied	C - E	—	—	—	—	—

X411 Left Rear Cargo Door Harness to Body Harness



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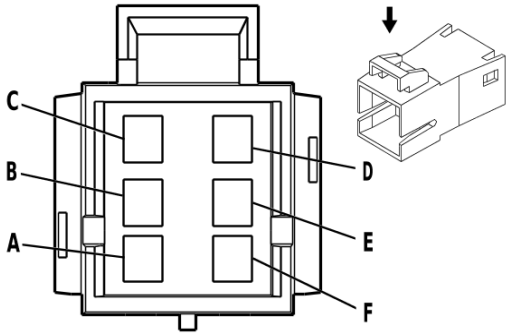


39689

Connector Part Information

Harness Type: Left Rear Cargo Door
OEM Connector: 12064752
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series (BK)

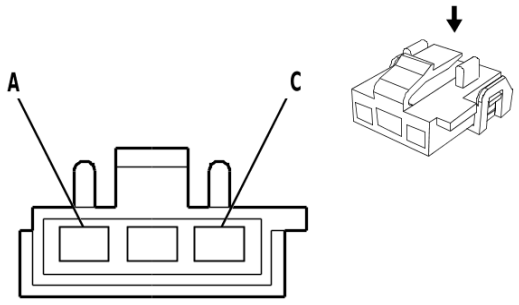
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X411 Left Rear Cargo Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	TN	1859	I	—	Left Rear Midrange Speaker [+] Control	A	1	TN	1859	II	—
B	1	WH	1959	I	—	Left Rear Midrange Speaker [-] Control	B	1	WH	1959	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	5	PU	293	I	—	Rear Defogger Grid Control	D	5	PU	293	II	—
E	3	BK	850	I	—	Ground 8	E	3	BK	850	II	—
F	—	—	—	—	—	Not Occupied	F	—	—	—	—	—

X412 Right Rear Cargo Door Harness to Body Harness



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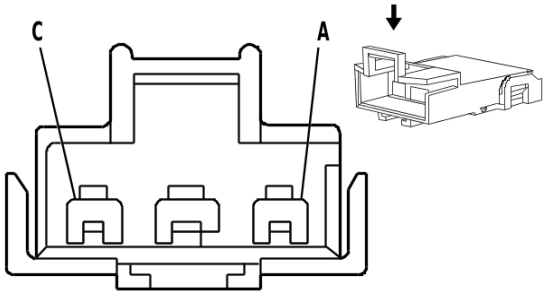


1884161

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 12020014
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F Weather Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12045681
Service Connector: 19368884
Description: 3-Way M 280, 480 Metri-Pack Series (BK)

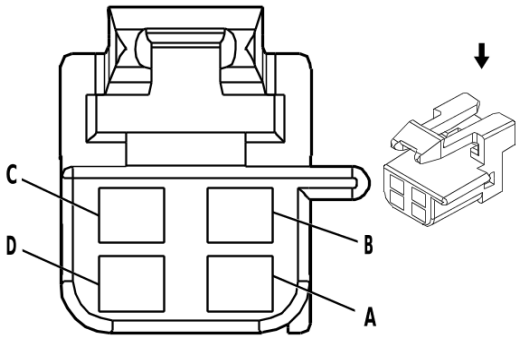
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-40 (BU)	No Tool Required
II	Not Required	J-35616-4A (PU)	No Tool Required
III	Not Required	J-35616-41 (BU)	No Tool Required
IV	Not Required	J-35616-5 (PU)	No Tool Required

X412 Right Rear Cargo Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BN	2509	II	—	Left Rear Park Lamp Control	A	0.5	BN	2509	IV	—
B	5	PU	293	I	—	Rear Defogger Grid Control	B	5	PU	293	III	—
C	0.5 3	BK BK	1050 1050	II II	— —	Ground 10 Ground 10	C	3	BK	1050	IV	—

X415 Rear Speaker Harness to Body Harness



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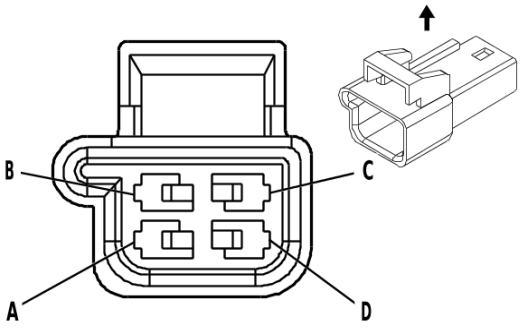


40399

Connector Part Information

Harness Type: Rear Speaker
OEM Connector: 12064760
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12065658
Service Connector: 19368719
Description: 4-Way M 150 Metri-Pack Series (BK)

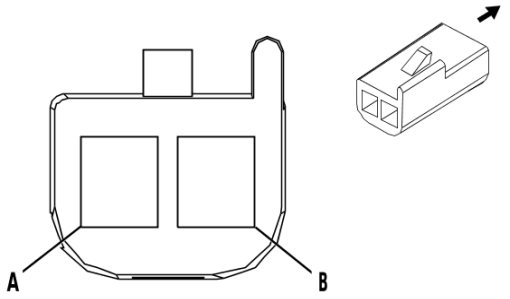
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X415 Rear Speaker Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	WH	1959	I	—	Left Rear Midrange Speaker [-] Control	A	1	WH	1959	II	—
B	1	TN	1859	I	—	Left Rear Midrange Speaker [+] Control	B	1	TN	1859	II	—
C	1	OG	1955	I	—	Right Rear Midrange Speaker [-] Control	C	1	OG	1955	II	—
D	1	TN	1855	I	—	Right Rear Midrange Speaker [+] Control	D	1	TN	1855	II	—

X419 Center High Mounted Stop Lamp Jumper Harness to Body Harness



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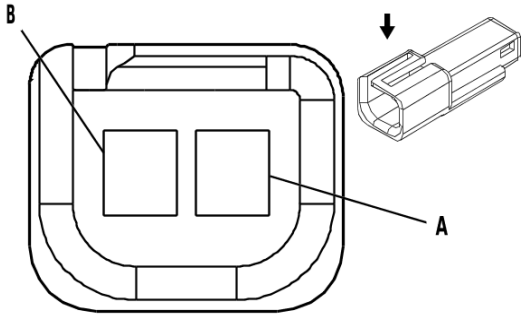


1664595

Connector Part Information

Harness Type: Center High Mounted Stop Lamp Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12048457
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

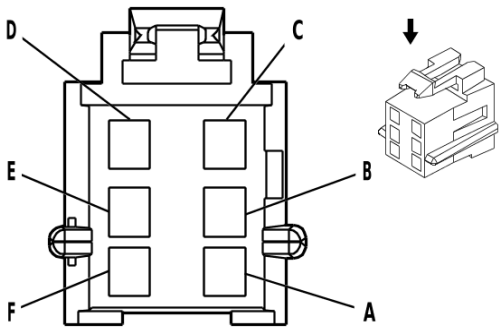
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X419 Center High Mounted Stop Lamp Jumper Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B	0.8	BK	850	I	—	Ground 8	B	0.8	BK	850	II	—
A	0.8	BU	1320	I	—	Center High Mounted Stop Lamp Control 2	A	0.8	BU	1320	II	—

X420 Tail Lamp Assembly - Right Harness to Body Harness



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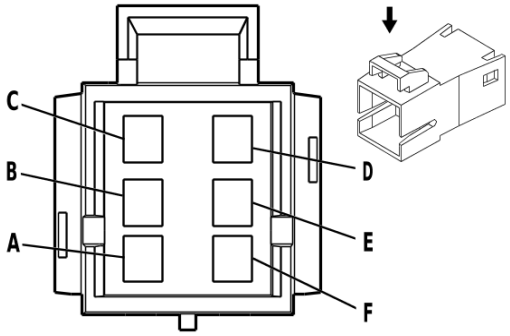


39689

Connector Part Information

Harness Type: Tail Lamp Assembly - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series (BK)

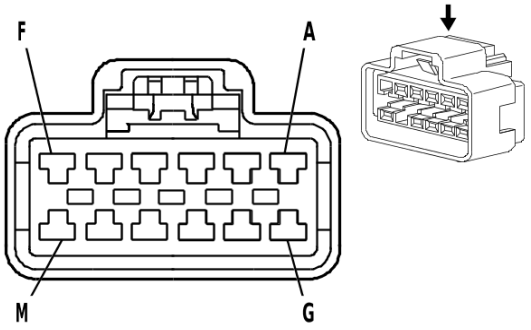
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-5 (PU)	No Tool Required

X420 Tail Lamp Assembly - Right Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
F	0.8	GN	24	I	—	Backup Lamp Control	F	0.8	GN	24	II	—
D	0.8	BK	1050	I	—	Ground 10	D	0.8	BK	1050	II	—
B	1	GN	619	I	—	Right Rear Turn Signal Lamp Control	B	1	GN	619	II	—
A	0.5	BN	2609	I	—	Right Rear Park Lamp Control	A	0.5	BN	2609	II	—
C - E	—	—	—	—	—	Not Occupied	C - E	—	—	—	—	—

X421 Headliner Harness to Body Harness



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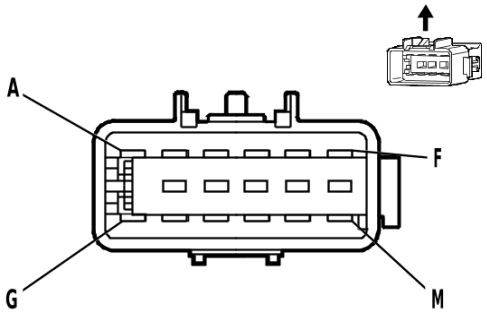


847281

Connector Part Information

Harness Type: Headliner
OEM Connector: 15326110
Service Connector: 15326110
Description: 12-Way F 280 GT Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15326942
Service Connector: 15326942
Description: 12-Way M 280 GT Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575753	J-35616-4A (PU)	J-38125-215A
II	13575505	J-35616-5 (PU)	J-38125-215A
III	13575507	J-35616-5 (PU)	J-38125-215A
IV	13576358	J-35616-5 (PU)	J-38125-215A

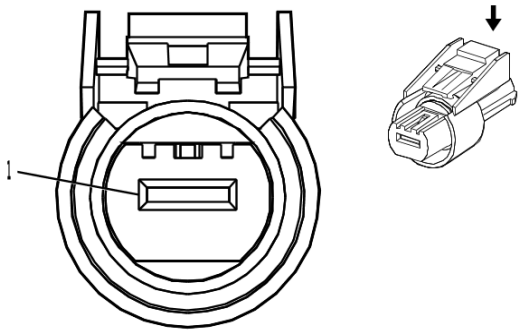
X421 Headliner Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.8	D-BU/WH	149	I	—	Courtesy Lamp Control	A	0.8	D-BU/WH	149	III	—
B	0.8	D-BU/WH	149	I	—	Courtesy Lamp Control	B	0.8	D-BU/WH	149	III	—
C	0.35	BN/WH	230	I	—	Instrument Panel Lamp Dimming Control	C	0.35	BN/WH	230	II	—
D	0.5	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	D	0.5	WH	1924	IV	—
E	0.5	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	E	0.5	OG	1925	IV	—
F	0.5	D-BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	F	0.5	D-BU	1926	IV	—
G	0.35	BN	341	I	—	Run Ignition 3 Voltage 3	G	0.35	BN	341	II	—

X421 Headliner Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
H	0.8	BK	1050	I	—	Ground 10	H	0.8	BK	1050	III	—
J	0.8	OG	1732	I	—	Control Module 12V Reference 3	J	0.8	OG	1732	III	—
K	0.5	BN	5263	I	—	Auxiliary HVAC Rear Temperature Signal	K	0.5	BN	5263	IV	—
L	0.5	PU/WH	5264	I	—	Auxiliary HVAC Rear Mode Signal	L	0.5	PU/WH	5264	IV	—
M	0.5	PK/BK	5265	I	—	Auxiliary HVAC Rear Control Signal	M	0.5	PK/BK	5265	IV	—

X460 Chassis Harness to Chassis Harness



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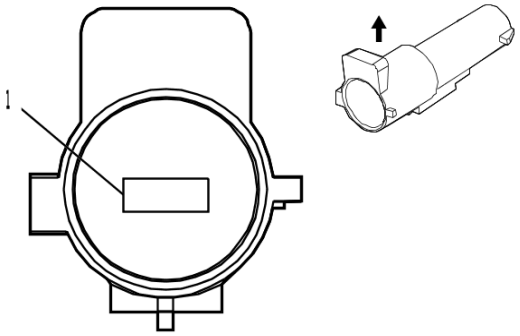


814660

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326120
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 800 Metri-Pack Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326119
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M 800 Metri-Pack Series, Sealed (BK)

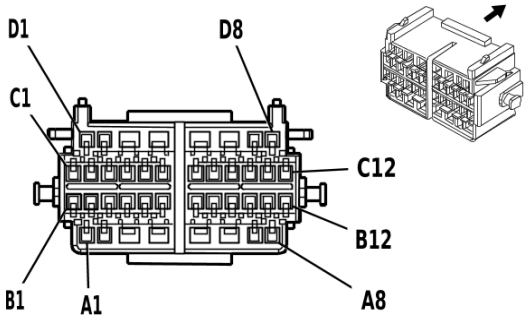
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-44 (YE)	No Tool Required
II	Not Required	J-35616-45 (YE)	No Tool Required

X460 Chassis Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	8	WH	22	I	—	Trailer Ground	1	8	WH	22	II	—

X500 Driver Door Harness to Body Harness



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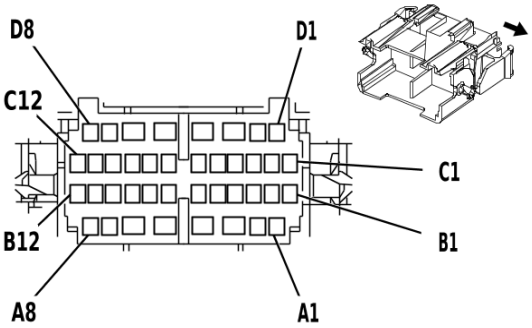


1715230

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15448129
Service Connector: Service by Harness - See Part Catalog
Description: 40-Way F 150, 280 GT Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15416976
Service Connector: 89047197
Description: 40-Way M 150, 280 GT Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-4A (PU)	No Tool Required
III	13575500	J-35616-3 (GY)	J-38125-215A
IV	13575505	J-35616-5 (PU)	J-38125-215A
V	13575510	J-35616-5 (PU)	J-38125-215A

X500 Driver Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.35	TN	126	I	—	Left Front Door Open Switch Signal	A1	0.35	TN	126	III	—
A2 - A4	—	—	—	—	—	Not Occupied	A2 - A4	—	—	—	—	—
A5	3 0.35	BK BK	450 450	II II	AU3 +(DE5/ DEB/ DEE/A31) AU3-A31-DEE-DEB-DE5	Ground 4 Ground 4	A5	3	BK	450	V	—
A6	0.35	BN/ WH	230	II	—	Instrument Panel Lamp Dimming Control	A6	0.35	BN/ WH	230	IV	—
A7	0.8	OG	2267	I	—	Outside Rearview Mirror Heater Control	A7	0.8	OG	2267	III	—

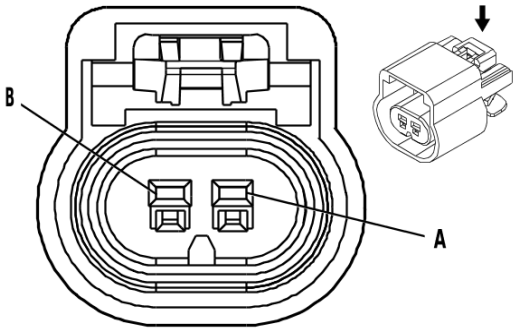
X500 Driver Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A8	0.35	PU/WH	889	I	—	Right Outside Rearview Mirror Motor Down Control	A8	0.5	PU/WH	889	III	—
B1	0.35	OG/BK	781	I	—	Driver Door Lock Switch Unlock Signal	B1	0.35	OG/BK	781	III	—
B2	0.35	PK/BK	780	I	—	Driver Door Lock Switch Lock Signal	B2	0.35	PK/BK	780	III	—
B3	0.35	GY/BK	745	I	—	Left Front Door Ajar Switch Signal	B3	0.35	GY/BK	745	III	—
B4	0.35	BK	450	I	—	Ground 4	B4	0.35	BK	450	III	—
B5 - B6	—	—	—	—	—	Not Occupied	B5 - B6	—	—	—	—	—
B7	0.8	TN	694	I	—	Driver Door Lock Actuator Unlock Control	B7	0.8	TN	694	III	—
B8	0.8	GY	295	I	—	Door Lock Actuator Lock Control	B8	0.8	GY	295	III	—
B9 - B11	—	—	—	—	—	Not Occupied	B9 - B11	—	—	—	—	—
B12	0.8	BU	1857	I	—	Left Front Midrange Speaker [+] Control	B12	0.8	BU	1857	III	—
C1	0.5	PU/WH	6628	I	—	Left Front Side Impact Sensor Low Reference	C1	0.5	PU/WH	6628	III	—
C2	0.5	WH	2132	I	—	Left Front Side Impact Sensor Signal	C2	0.5	WH	2132	III	—
C3 - C6	—	—	—	—	—	Not Occupied	C3 - C6	—	—	—	—	—
C7	0.5	BU/WH	1314	I	—	Left Front Turn Signal Lamp Control	C7	0.5	BU/WH	1314	III	—
C8	0.5	RD/WH	4340	I	—	Secondary Fused Battery Positive Voltage 43	C8	0.5	RD/WH	4340	III	—
C9 - C11	—	—	—	—	—	Not Occupied	C9 - C11	—	—	—	—	—
C12	0.8	BU	1957	I	—	Left Front Midrange Speaker [-] Control	C12	0.8	BU	1957	III	—

X500 Driver Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D1 - D3	—	—	—	—	—	Not Occupied	D1 - D3	—	—	—	—	—
D4	3	TN	167	II	—	Right Front Window Down Switch Main Control Signal	D4	3	TN	167	V	—
D5	3	BU	166	II	—	Right Front Window Up Switch Main Control Signal	D5	3	BU	166	V	—
D6	3	GN	1001	II	—	Retained Accessory Power Control 2	D6	3	GN	1001	V	—
D7	0.35	BN/ WH	1498	I	—	Right Outside Rearview Mirror Motor Up Control	D7	0.5	BN/ WH	1498	III	—
D8	0.35	OG/ WH	881	I	—	Right Outside Rearview Mirror Motor Right Control	D8	0.5	OG/ WH	881	III	—

X501 Air Bag Jumper Harness to Driver Door Harness



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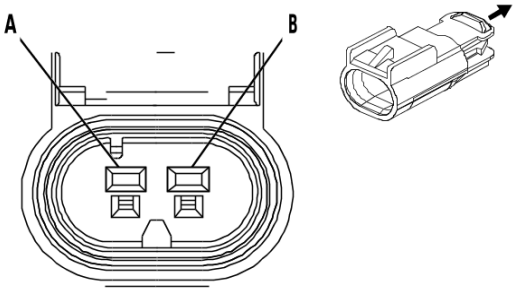


681875

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Driver Door
OEM Connector: 13510099
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 GT Series, Sealed (BK)

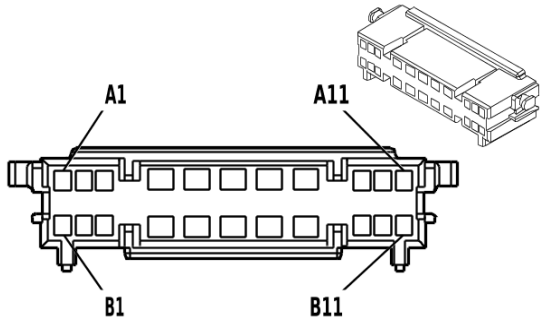
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-4A (PU)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X501 Air Bag Jumper Harness to Driver Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	PU/WH	6628	I	—	Left Front Side Impact Sensor Low Reference	A	0.5	PU/WH	6628	II	—
B	0.5	WH	2132	I	—	Left Front Side Impact Sensor Signal	B	0.5	WH	2132	II	—

X600 Passenger Door Harness to Body Harness



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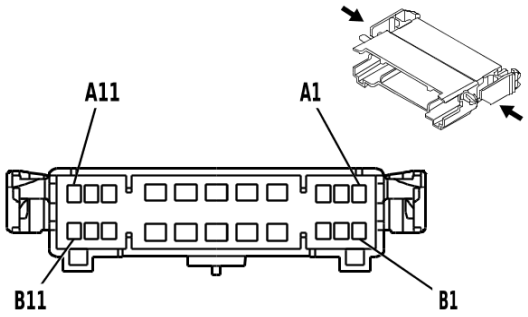


524211

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15326063
Service Connector: Service by Harness - See Part Catalog
Description: 22-Way F 150, 280 GT Series (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 15326064
Service Connector: 15326064
Description: 22-Way M 150, 280 GT Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-14 (GN)	No Tool Required
II	Not Required	J-35616-4A (PU)	No Tool Required
III	13575500	J-35616-3 (GY)	J-38125-215A
IV	13575505	J-35616-5 (PU)	J-38125-215A
V	13575507	J-35616-5 (PU)	J-38125-215A
VI	13575510	J-35616-5 (PU)	J-38125-215A
VII	13576358	J-35616-5 (PU)	J-38125-215A

X600 Passenger Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.8	OG	1853	I	—	Right Front Midrange Speaker [+] Control	A1	0.8	OG	1853	III	—
A2	0.8	TN	294	I	—	Door Lock Actuator Unlock Control	A2	0.8	TN	294	III	—
A3	0.8	OG	2267	I	—	Outside Rearview Mirror Heater Control	A3	0.8	OG	2267	III	—
A4	3	BU	166	II	—	Right Front Window Up Switch Main Control Signal	A4	3	BU	166	VI	—

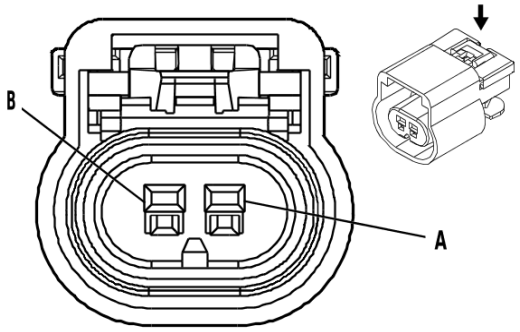
X600 Passenger Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A5	0.8 0.35	BK BK	1850 1850	II II	AU3 +(DE5/ DEB/ DEE/A31) D5/ DEB/DEE	Ground 18 Ground 18	A5	0.8	BK	1850	V	—
A6	0.35	BN/ WH	1498	II	—	Right Outside Rearview Mirror Motor Up Control	A6	0.5	BN/ WH	1498	VII	—
A7	0.35	OG/ WH	881	II	—	Right Outside Rearview Mirror Motor Right Control	A7	0.5	OG/ WH	881	VII	—
A8	0.35	TN/ WH	746	II	—	Right Front Door Ajar Switch Signal	A8	0.35	TN/ WH	746	IV	—
A9	0.35	BK	1850	I	—	Ground 18	A9	0.35	BK	1850	III	—
A10	0.5	GN	2134	I	—	Right Front Side Impact Sensor Signal	A10	0.5	GN	2134	III	—
A11	0.35	BU	244	I	—	Passenger Door Lock Switch Lock Control	A11	0.35	BU	244	III	—
B1	0.8	GN	1953	I	—	Right Front Midrange Speaker [-] Control	B1	0.8	GN	1953	III	—
B2	0.8	GY	295	I	—	Door Lock Actuator Lock Control	B2	0.8	GY	295	III	—
B3	0.5	BU/ WH	1315	I	—	Right Front Turn Signal Lamp Control	B3	0.5	BU/ WH	1315	III	—
B4	3	TN	167	II	—	Right Front Window Down Switch Main Control Signal	B4	3	TN	167	VI	—
B5	3	GN	1001	II	—	Retained Accessory Power Control 2	B5	3	GN	1001	VI	—
B6	0.35	BN/ WH	230	II	—	Instrument Panel Lamp Dimming Control	B6	0.35	BN/ WH	230	IV	—
B7	0.35	PU/ WH	889	II	—	Right Outside Rearview Mirror Motor Down Control	B7	0.5	PU/ WH	889	VII	—
B8	0.35	GN	1177	II	—	Right Front Door Open Switch Signal	B8	0.35	GN	1177	IV	—

X600 Passenger Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B9	—	—	—	—	—	Not Occupied	B9	—	—	—	—	—
B10	0.5	WH/ BK	6629	I	—	Right Front Side Impact Sensor Low Reference	B10	0.5	WH/ BK	6629	III	—
B11	0.35	BU	245	I	—	Passenger Door Lock Switch Unlock Control	B11	0.35	BU	245	III	—

X601 Side Impact Sensor - Right Front Jumper Harness to Passenger Door Harness



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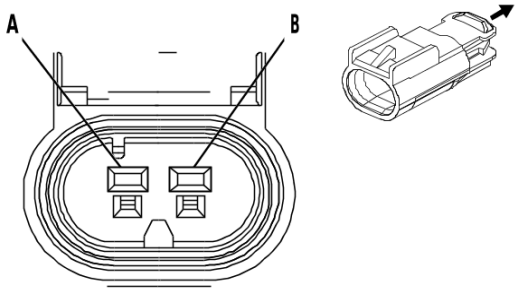


681875

Connector Part Information

Harness Type: Side Impact Sensor - Right Front Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13510099
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 GT Series, Sealed (BK)

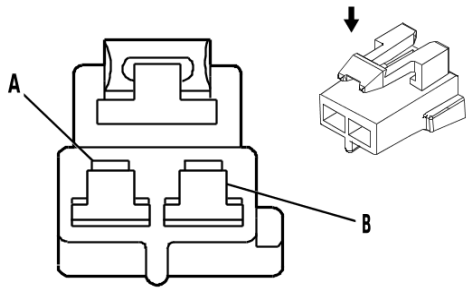
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-2A (GY)	No Tool Required
II	Not Required	J-35616-3 (GY)	No Tool Required

X601 Side Impact Sensor - Right Front Jumper Harness to Passenger Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B	0.5	GN	2134	I	—	Right Front Side Impact Sensor Signal	B	0.5	GN	2134	II	—
A	0.5	WH/ BK	6629	I	—	Right Front Side Impact Sensor Low Reference	A	0.5	WH/ BK	6629	II	—

X901 Rear Window Defogger Harness to Left Rear Cargo Door Harness



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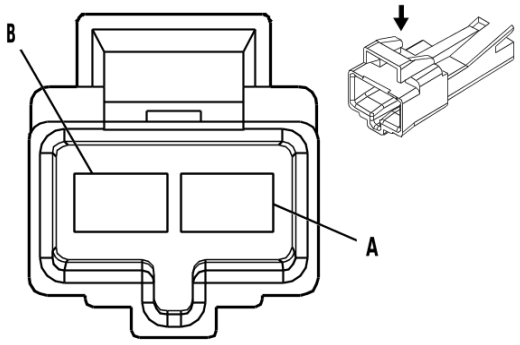


38284

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12064749
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Left Rear Cargo Door
OEM Connector: 12064750
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 480 Metri-Pack Series (BK)

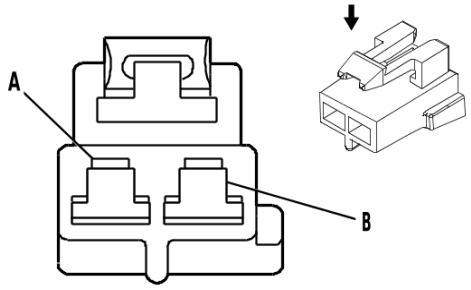
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-40 (BU)	No Tool Required
II	Not Required	J-35616-40 (BU)	No Tool Required
III	Not Required	J-35616-41 (BU)	No Tool Required

X901 Rear Window Defogger Harness to Left Rear Cargo Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	PU	293	I	—	Rear Defogger Grid Control	A	5	PU	293	III	—
B	3	BK	850	I	—	Ground 8	B	3	BK	850	II	—

X902 Rear Window Defogger Harness to Right Rear Cargo Door Harness



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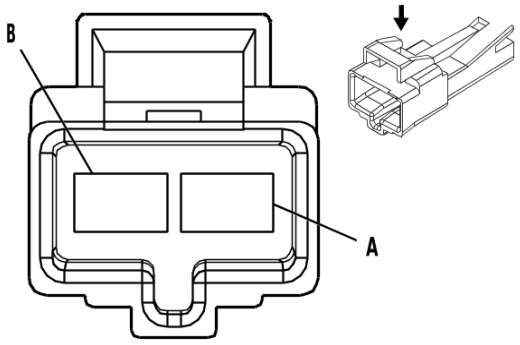


38284

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12064749
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Right Rear Cargo Door
OEM Connector: 12064750
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 480 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not Required	J-35616-40 (BU)	No Tool Required
II	Not Required	J-35616-40 (BU)	No Tool Required
III	Not Required	J-35616-41 (BU)	No Tool Required

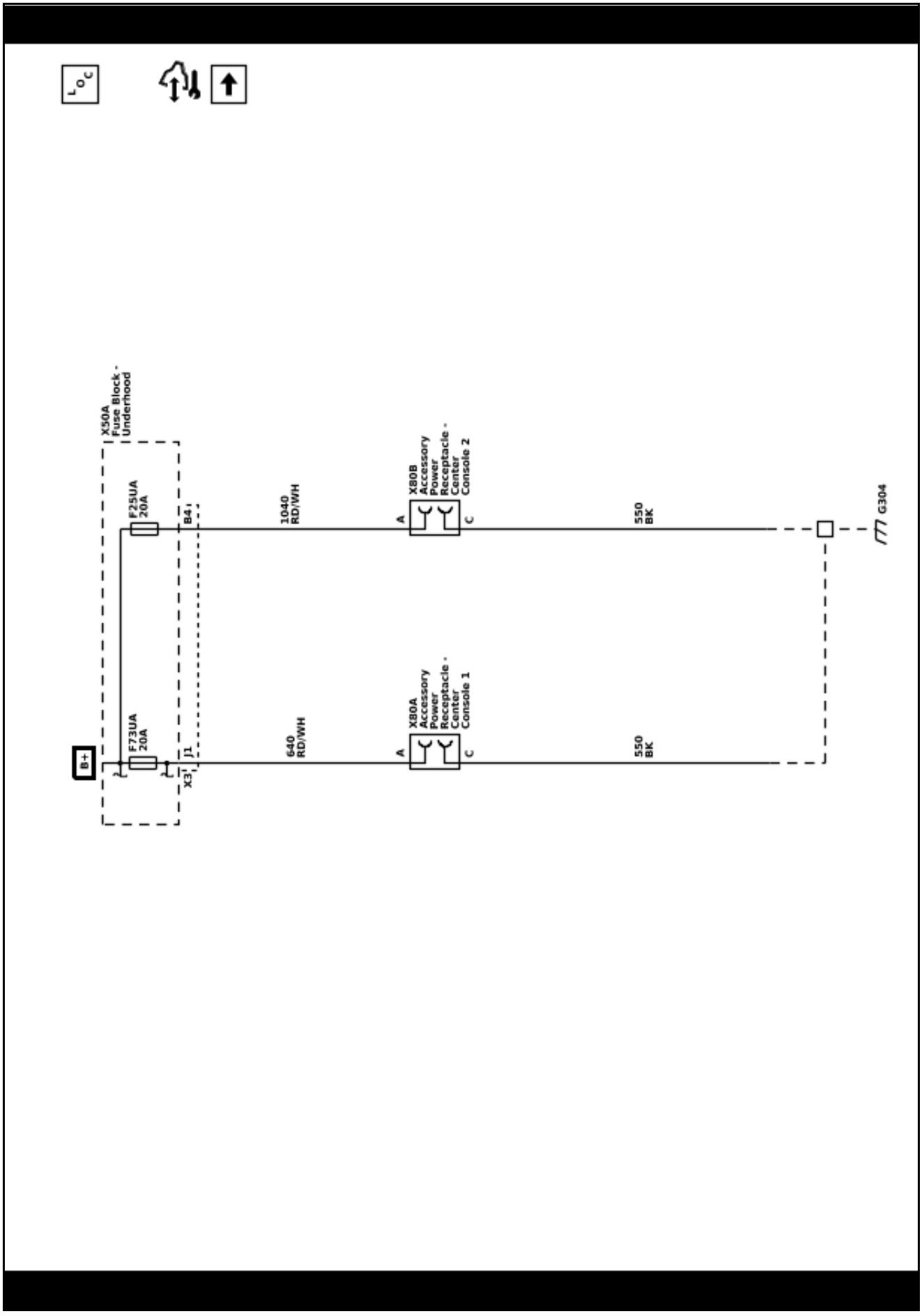
X902 Rear Window Defogger Harness to Right Rear Cargo Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	PU	293	I	—	Rear Defogger Grid Control	A	5	PU	293	III	—
B	3	BK	850	I	—	Ground 8	B	3	BK	1050	II	—

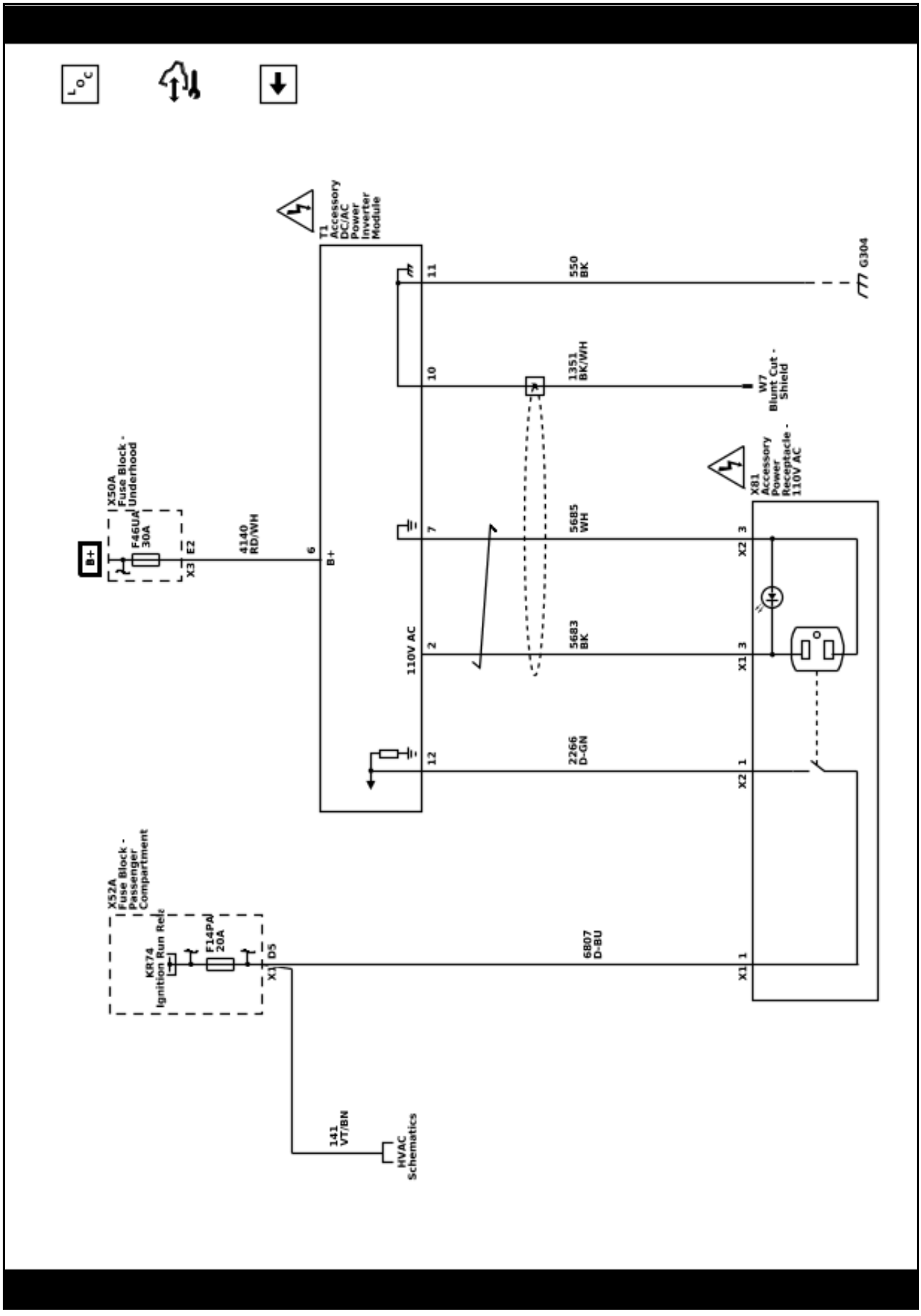
Power Outlets

Schematic and Routing Diagrams

Cigar Lighter/Power Outlet Schematics (Cigar Lighter/Power Outlet)



Cigar Lighter/Power Outlet Schematics (110V AC Outlet (KI4))



Description and Operation

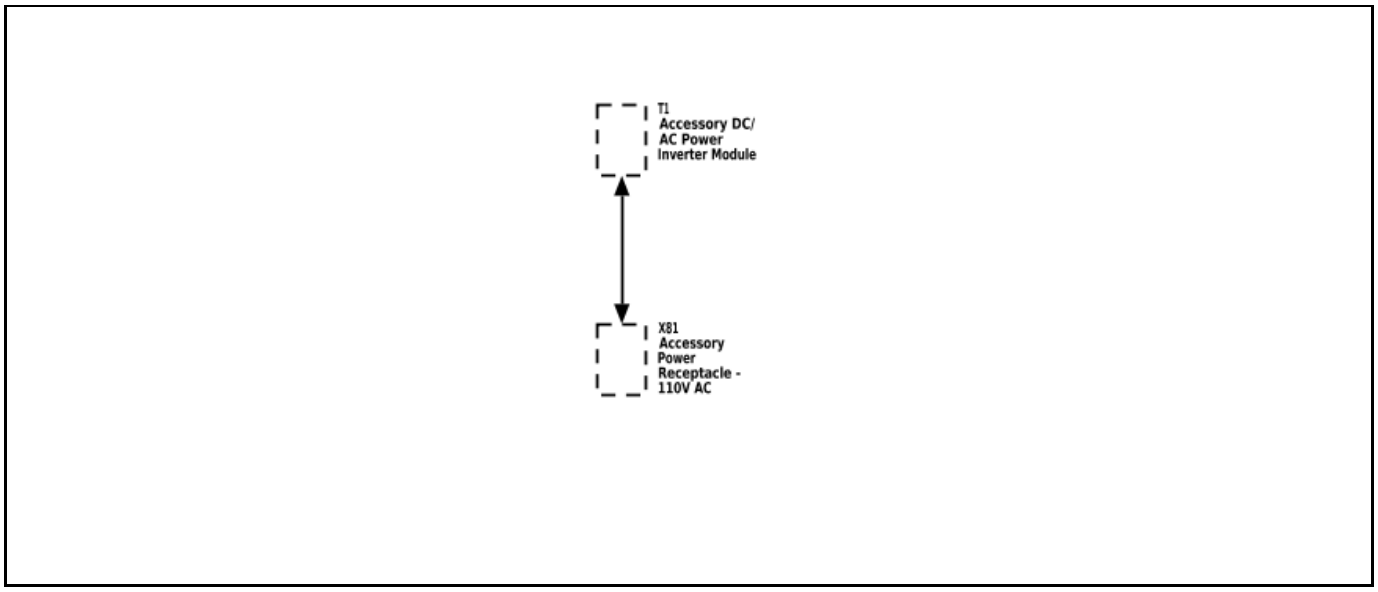
Power Outlets Description and Operation

12 Volt Power Outlet Receptacle Description and Operation

The 12 V accessory power receptacles are supplied B+ all the time.

110 Volt Power Outlet Receptacle System Description

Power Outlets Block Diagram



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The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 110 V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 110 V at 60 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 110 V AC provides the usual connection for AC powered devices.

110 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 110 V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 110 V AC, the normally open switch in the accessory power receptacle – 110 V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 110 V AC switch, the inverter module begins to supply 110 V AC to the accessory power receptacle – 110 V AC after a 1.5 second delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

110 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 110 V circuit for a short to vehicle chassis ground. If a 110 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

110 Volt Power Outlet Receptacle Overload Shutdown

The accessory DC/AC power inverter module will turn OFF if the current in the 110 V circuit is greater than 3.8 A for 1 second, or 2.5 A for 10 seconds. The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

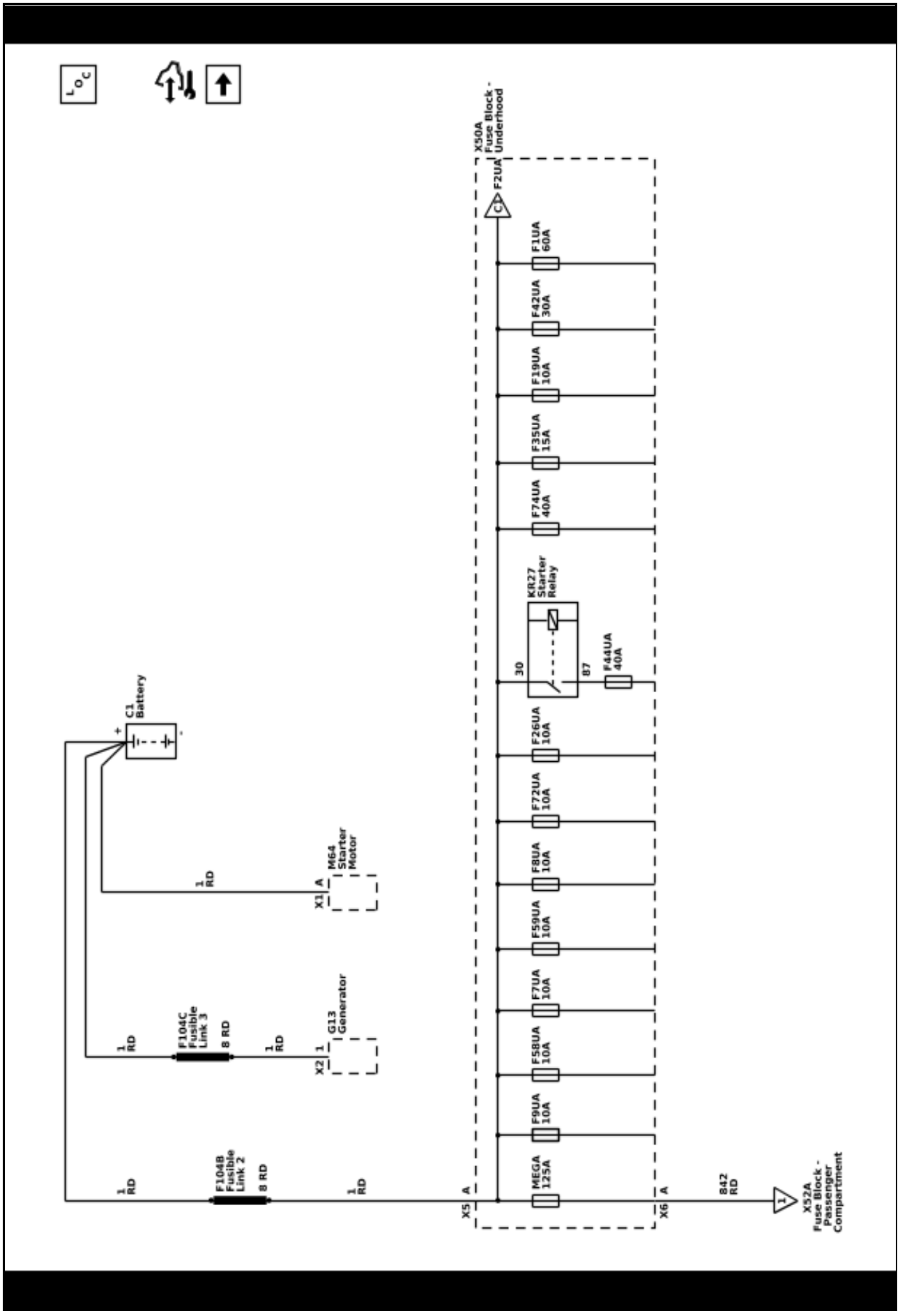
110 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the outlet, and then plugged into the outlet.

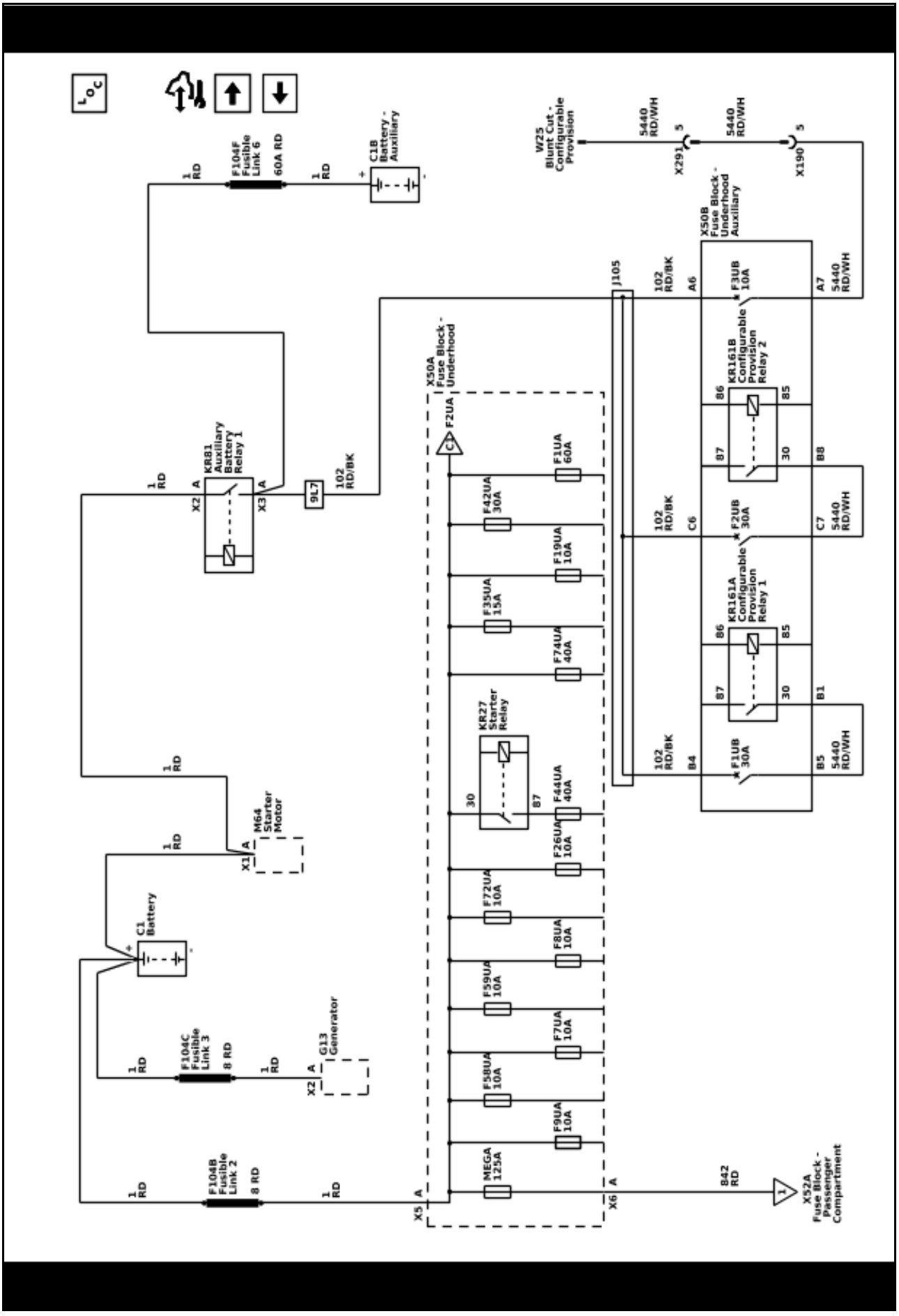
Wiring Systems and Power Management

Schematic and Routing Diagrams

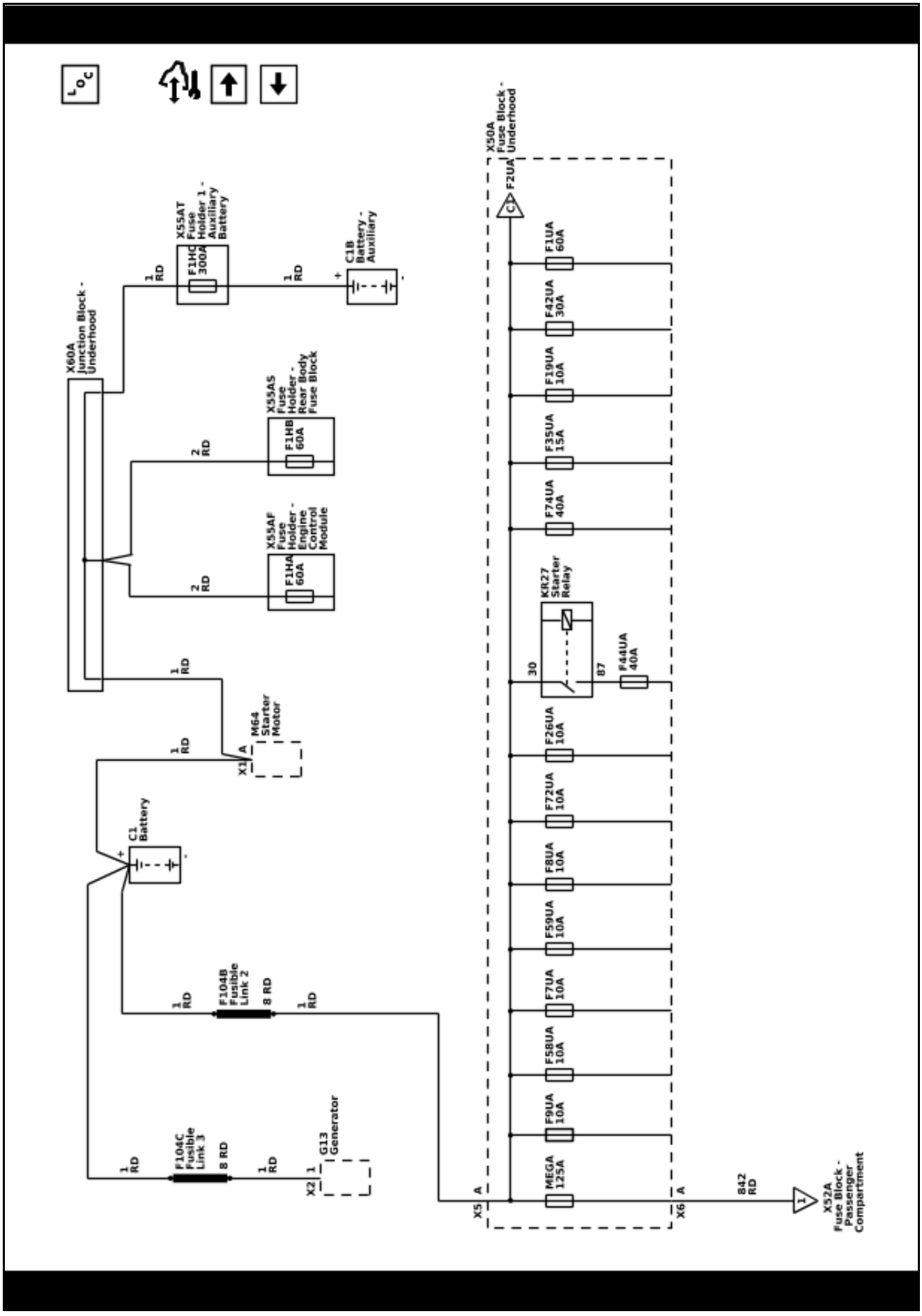
Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block (Gas with One Battery, 1 of 3))



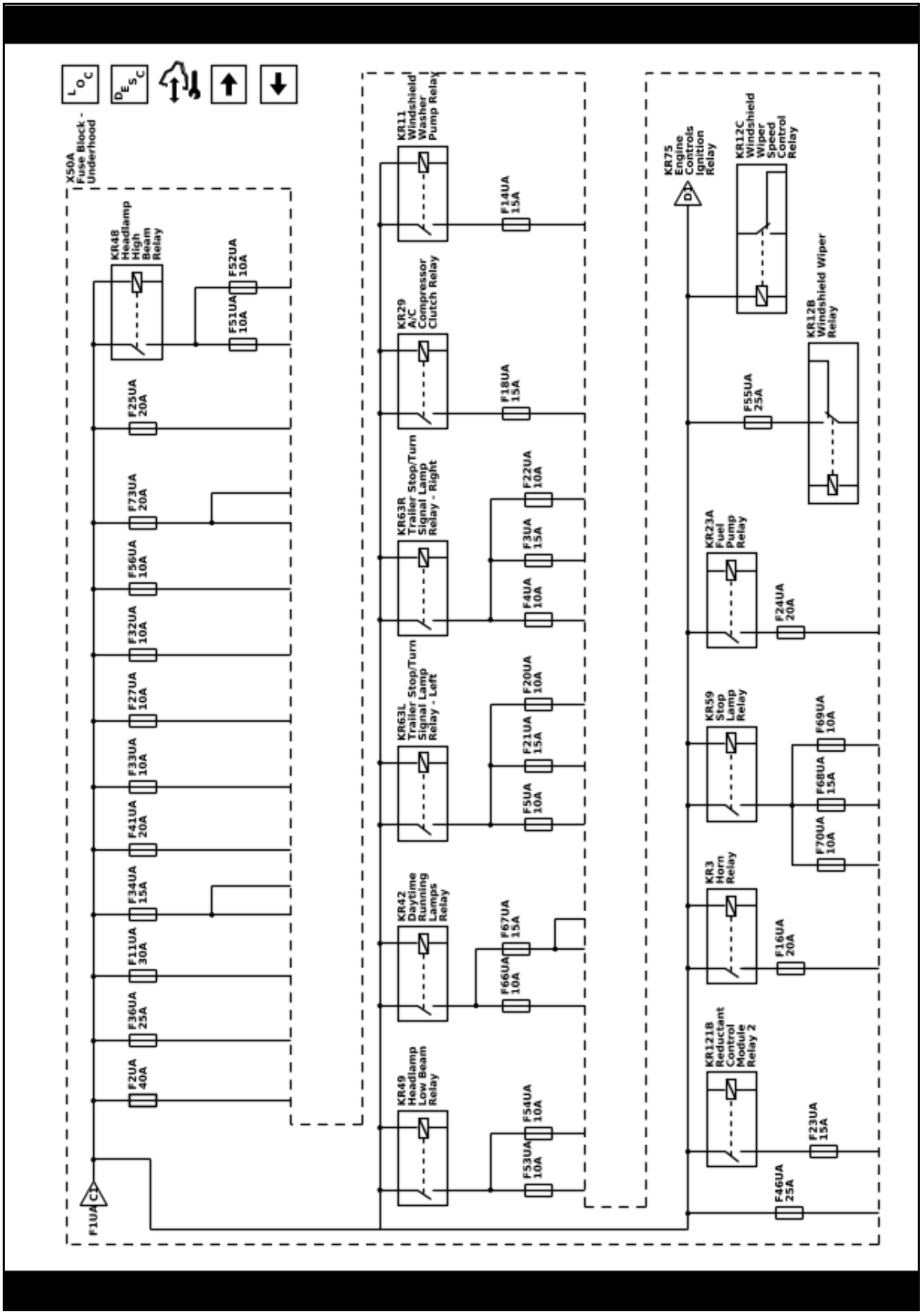
Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block (Gas with Two Batteries, 1 of 3) and Fuse Block - Underhood Auxiliary (9L7))



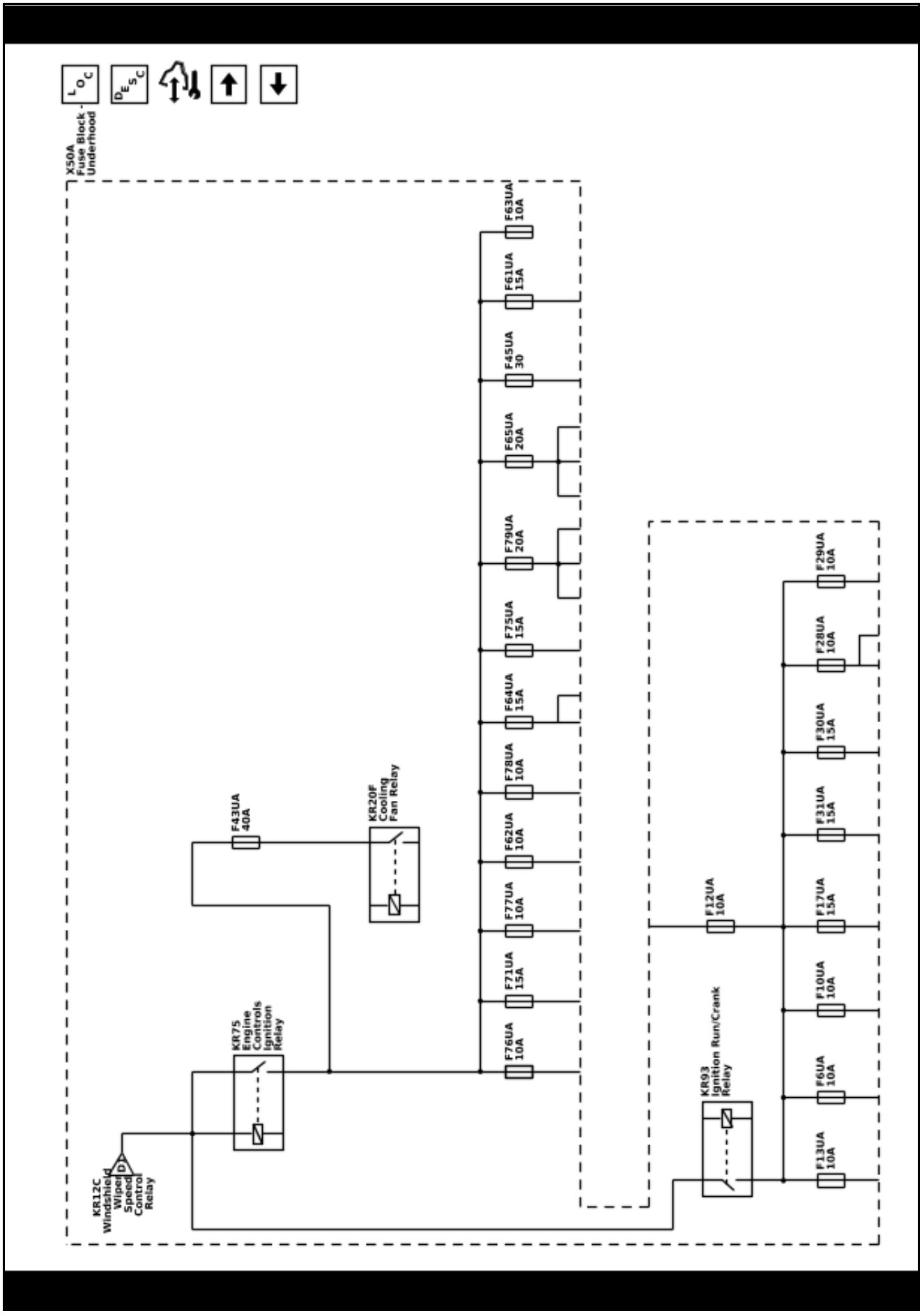
Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block (Diesel, 1 of 3))



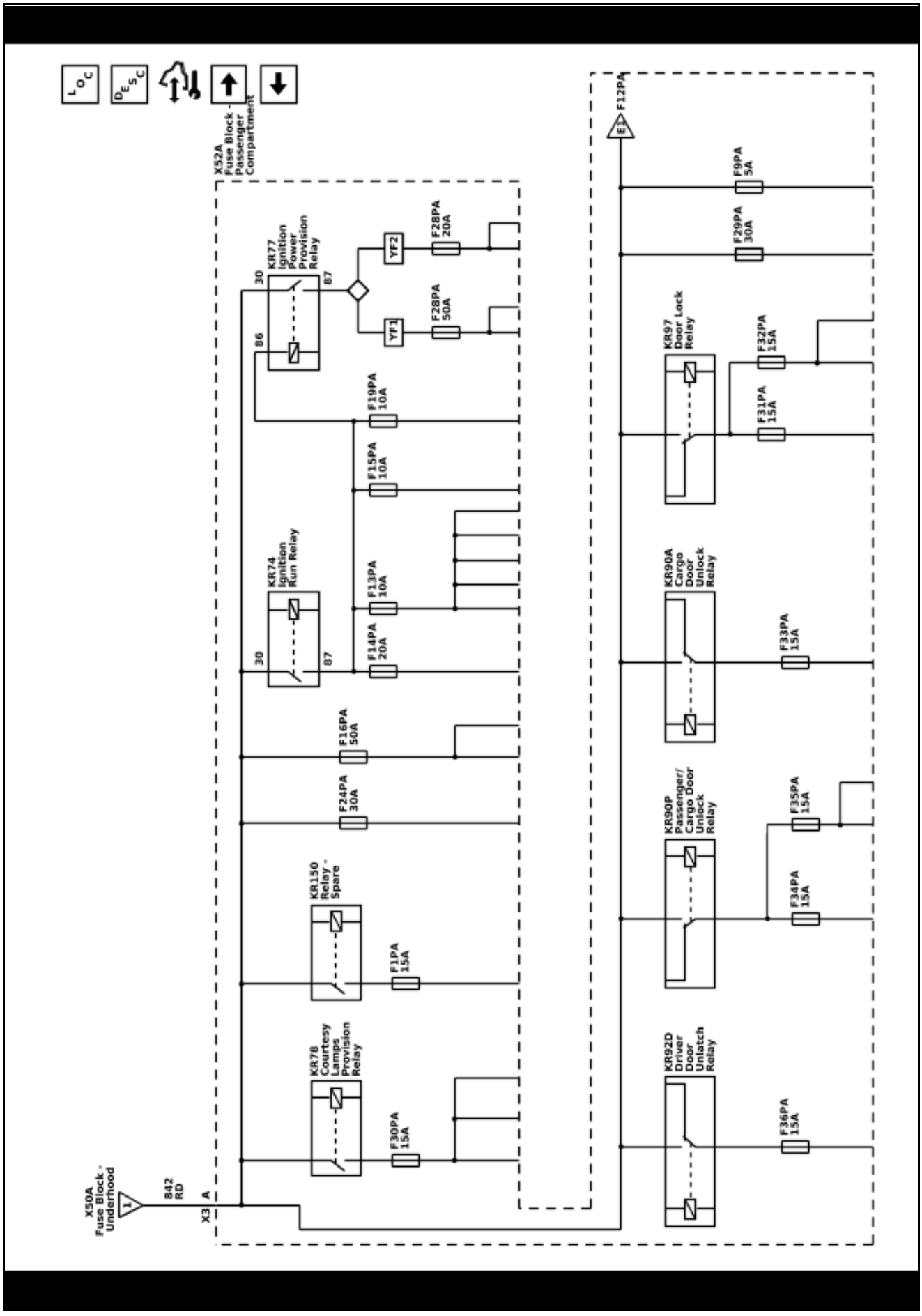
Power Distribution Schematics (B+ Bus - Underhood Fuse Block (2 of 3))



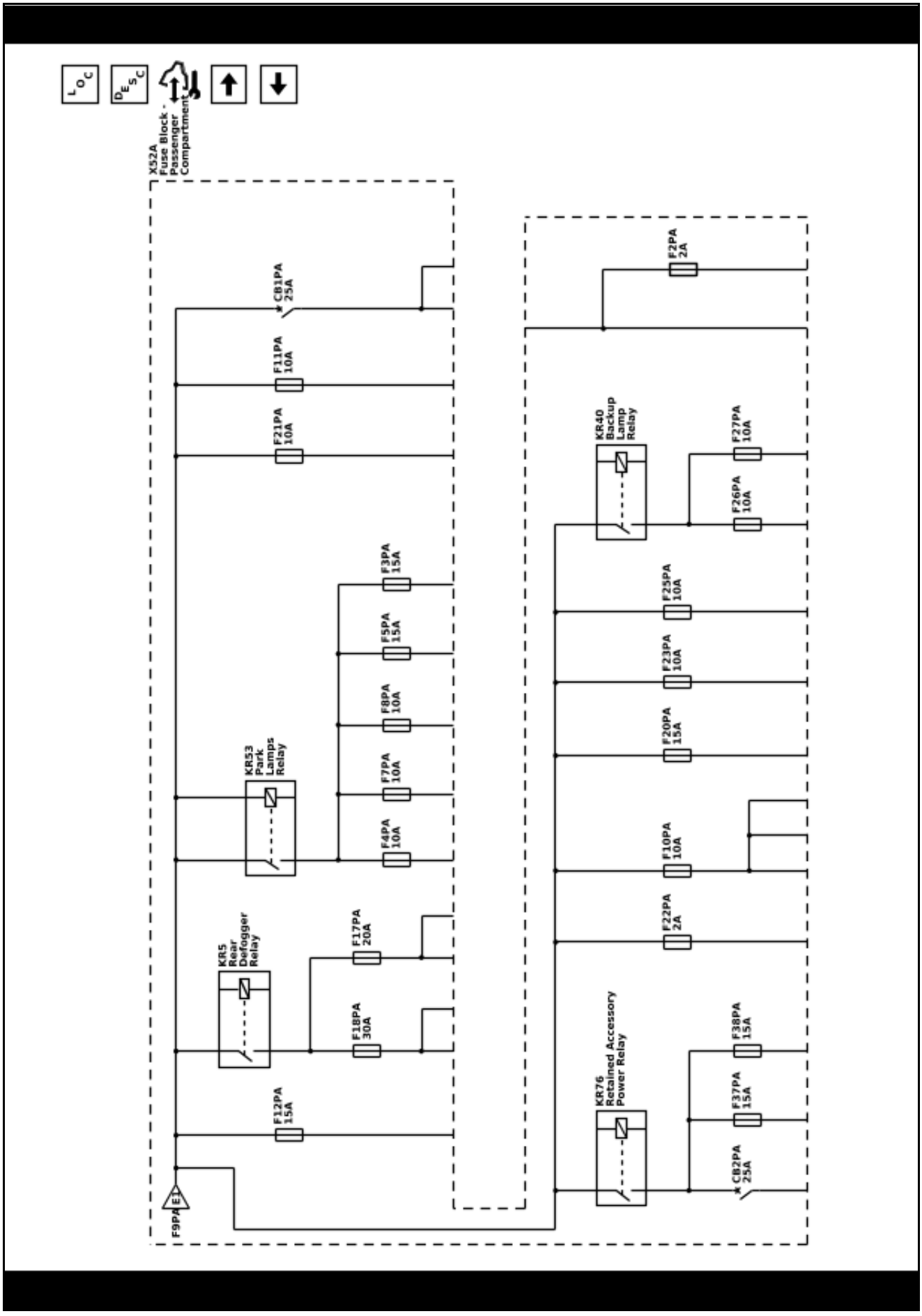
Power Distribution Schematics (B+ Bus - Underhood Fuse Block (3 of 3))



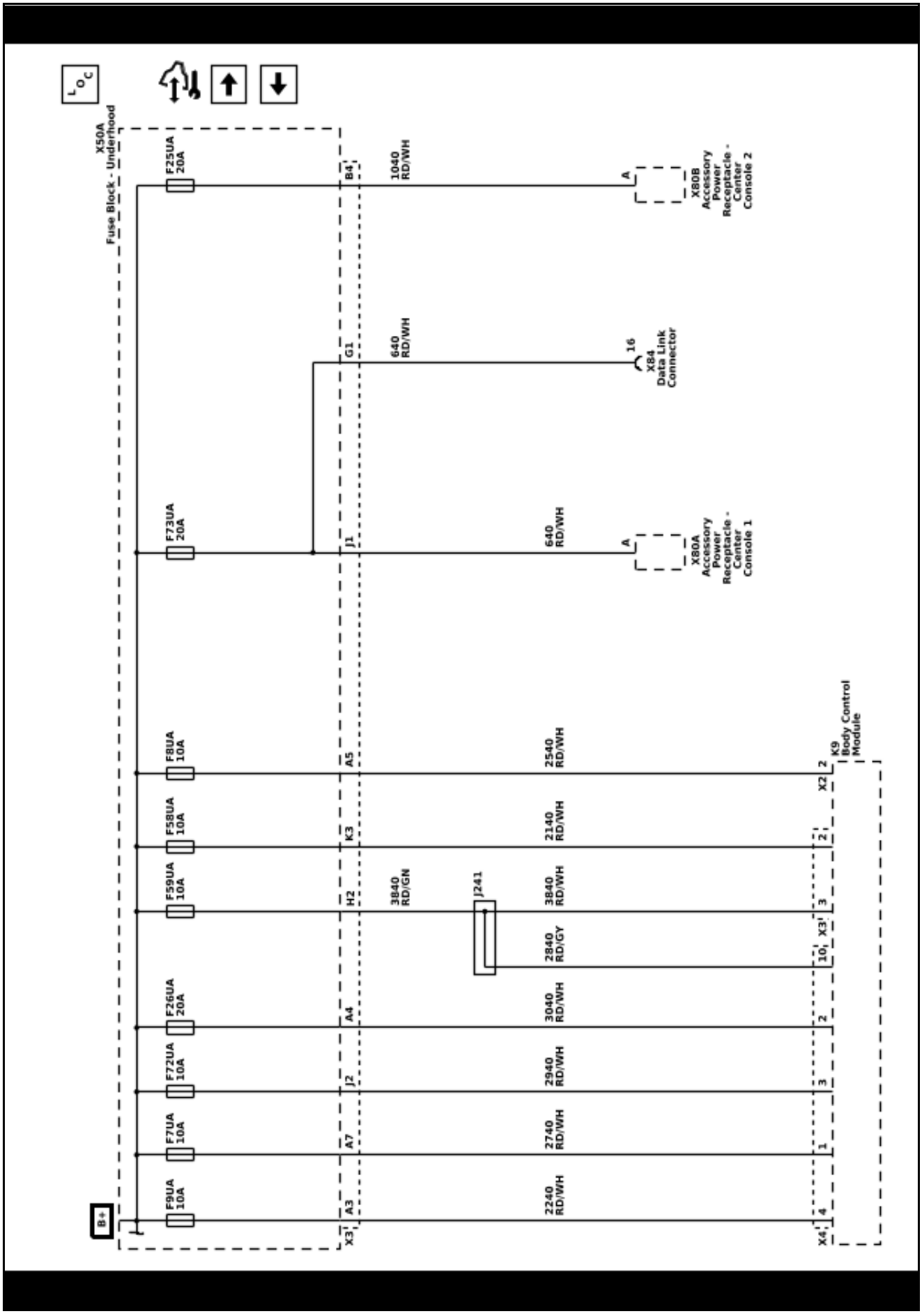
Power Distribution Schematics (B+ Bus - Passenger Compartment Fuse Block (1 of 2))



Power Distribution Schematics (B+ Bus - Passenger Compartment Fuse Block (2 of 2))



Power Distribution Schematics (Fuses F7UA, F8UA, F9UA, F25UA, F26A, F58UA, F59UA, F72UA, and F73UA)



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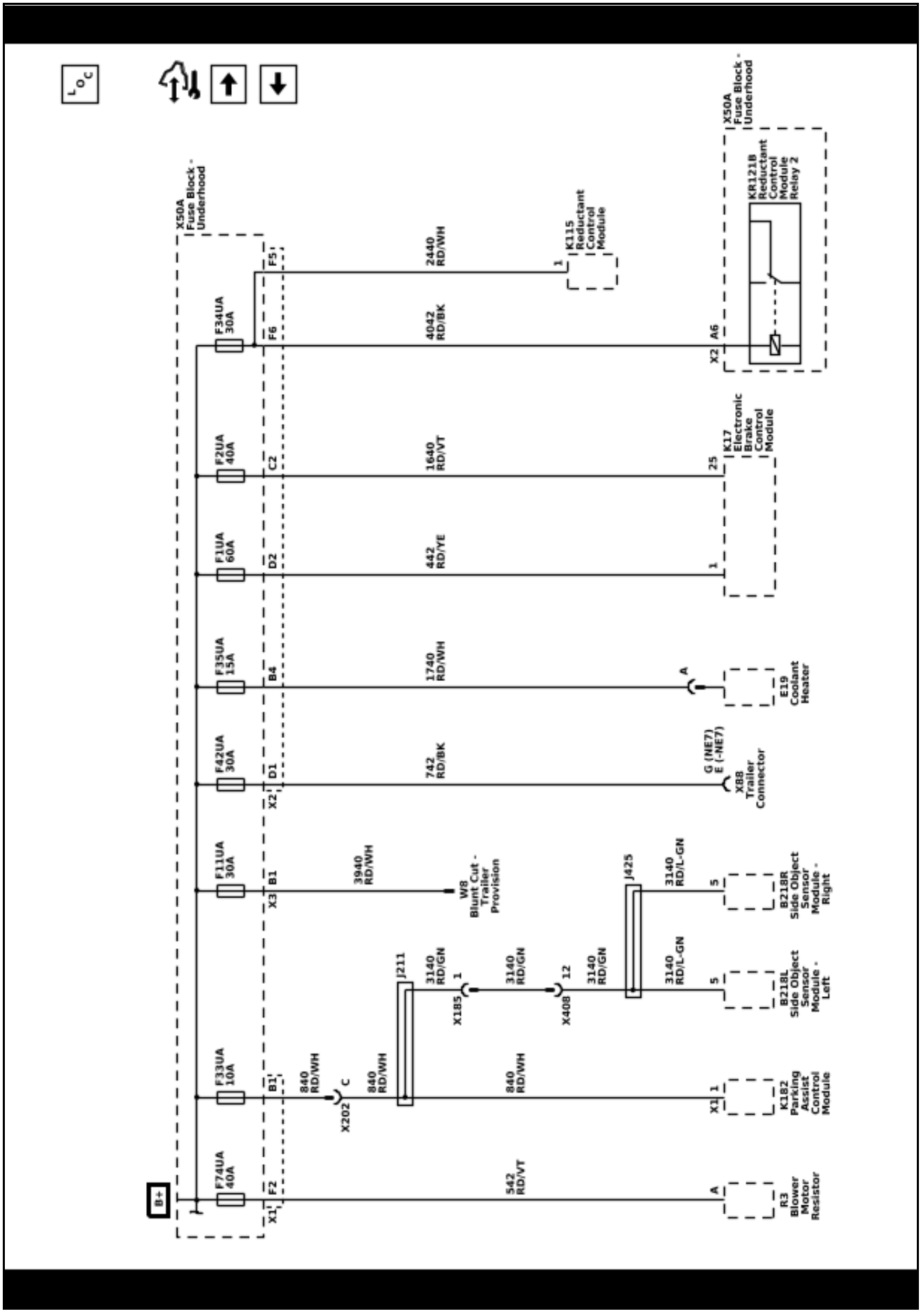
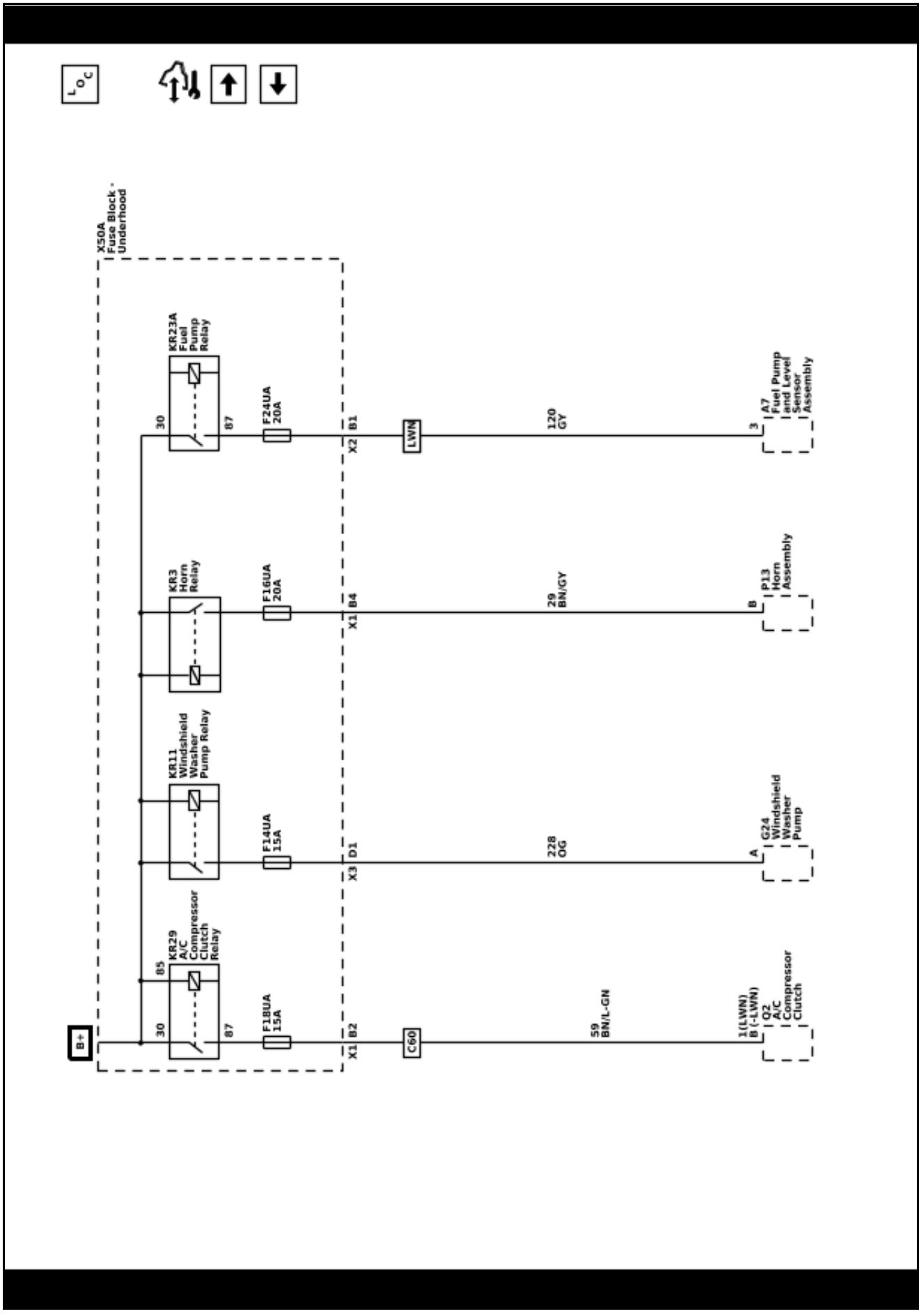
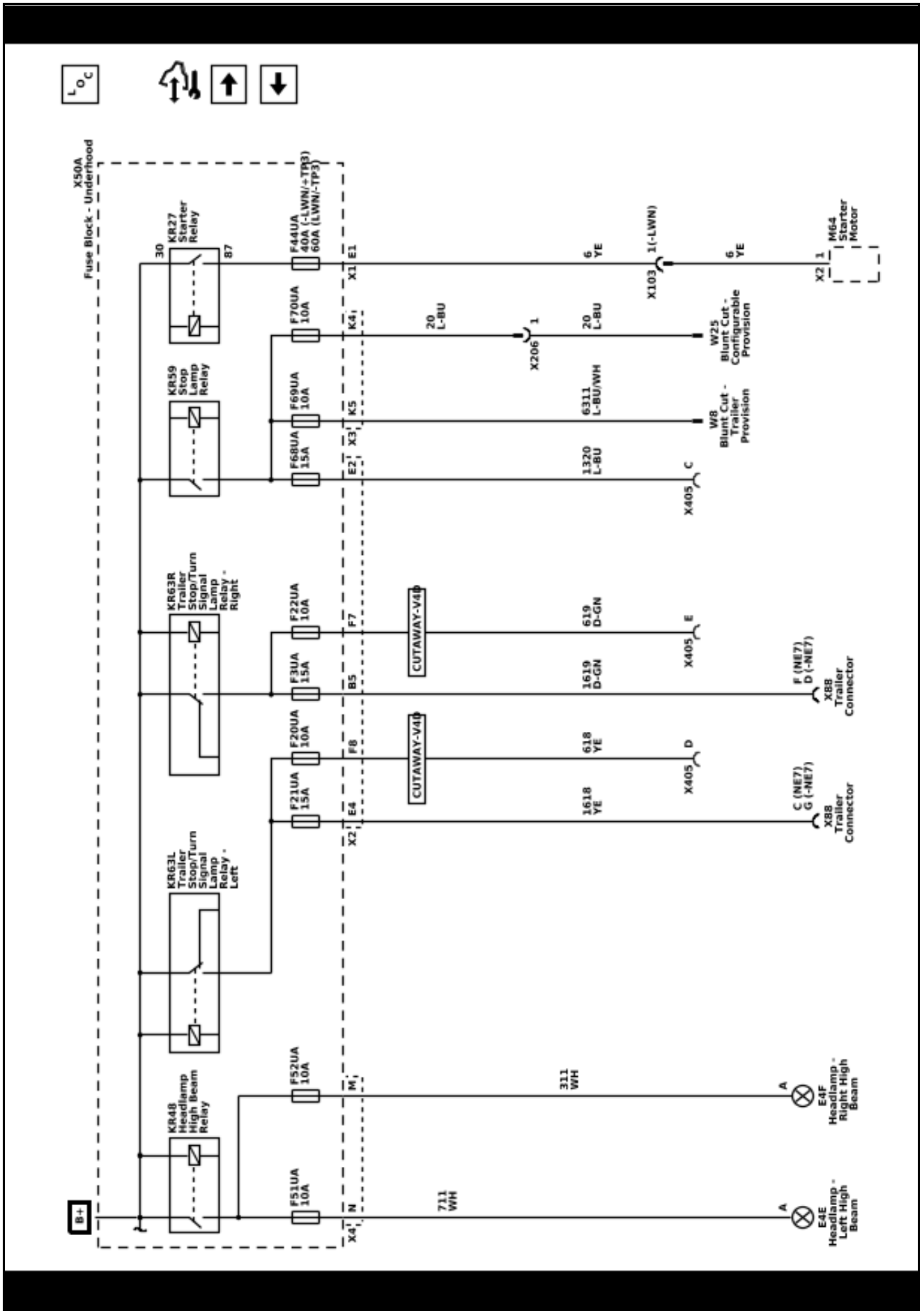
Power Distribution Schematics (Fuses F1UA, F2UA, F11UA, F33UA, F34UA, F35UA, F42UA, and F74UA)



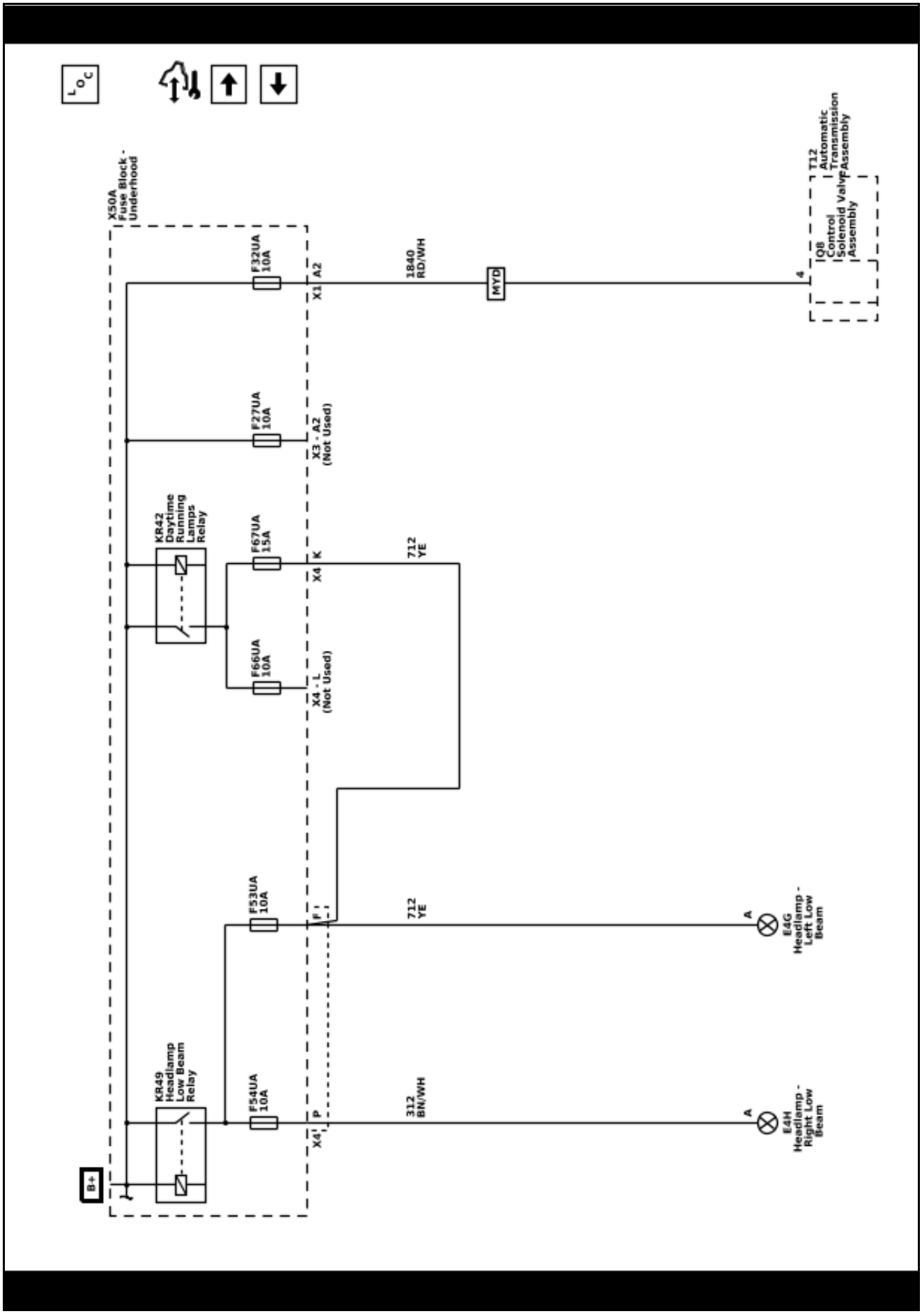
Power Distribution Schematics (Fuses F14UA, F16UA, F18UA, and F24UA)



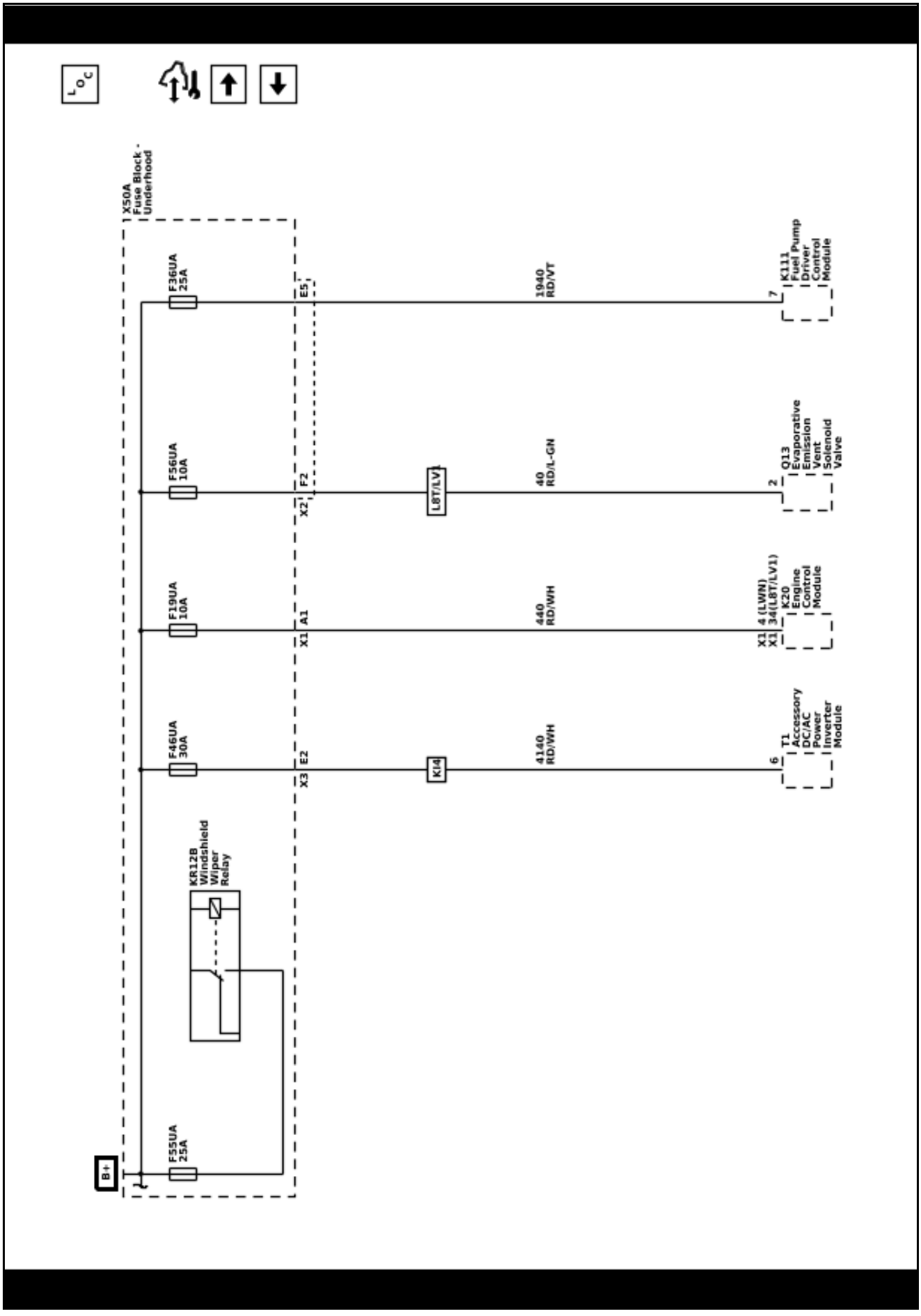
Power Distribution Schematics (Fuses F3UA, F21UA, F44UA, F51UA, F52UA, F68UA, F69UA, and F70UA)



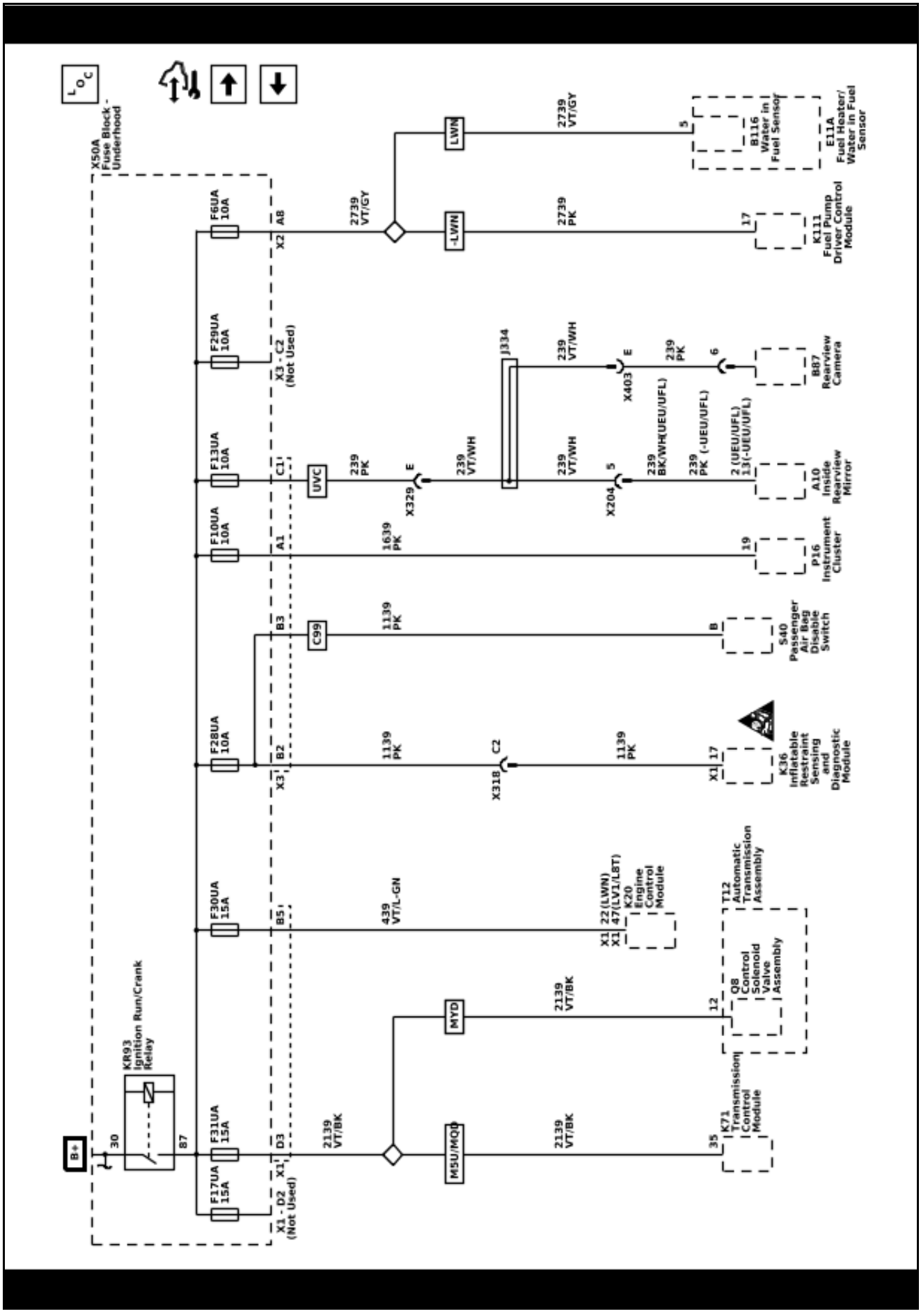
Power Distribution Schematics (Fuses F27UA, F32UA, F53UA, F54UA, F66UA, and F67UA)



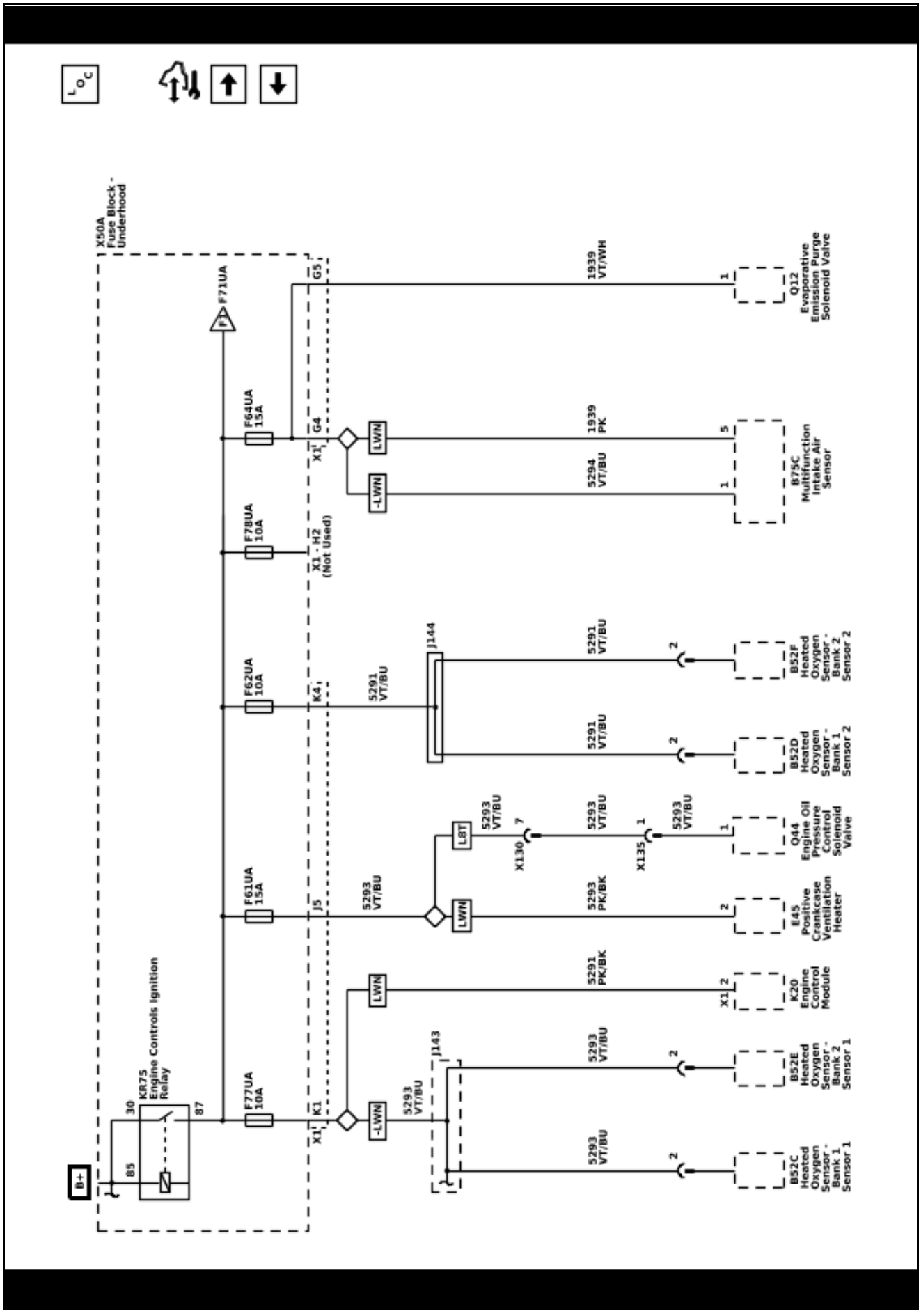
Power Distribution Schematics (Fuses F19UA, F36UA, F46UA, and F56UA)



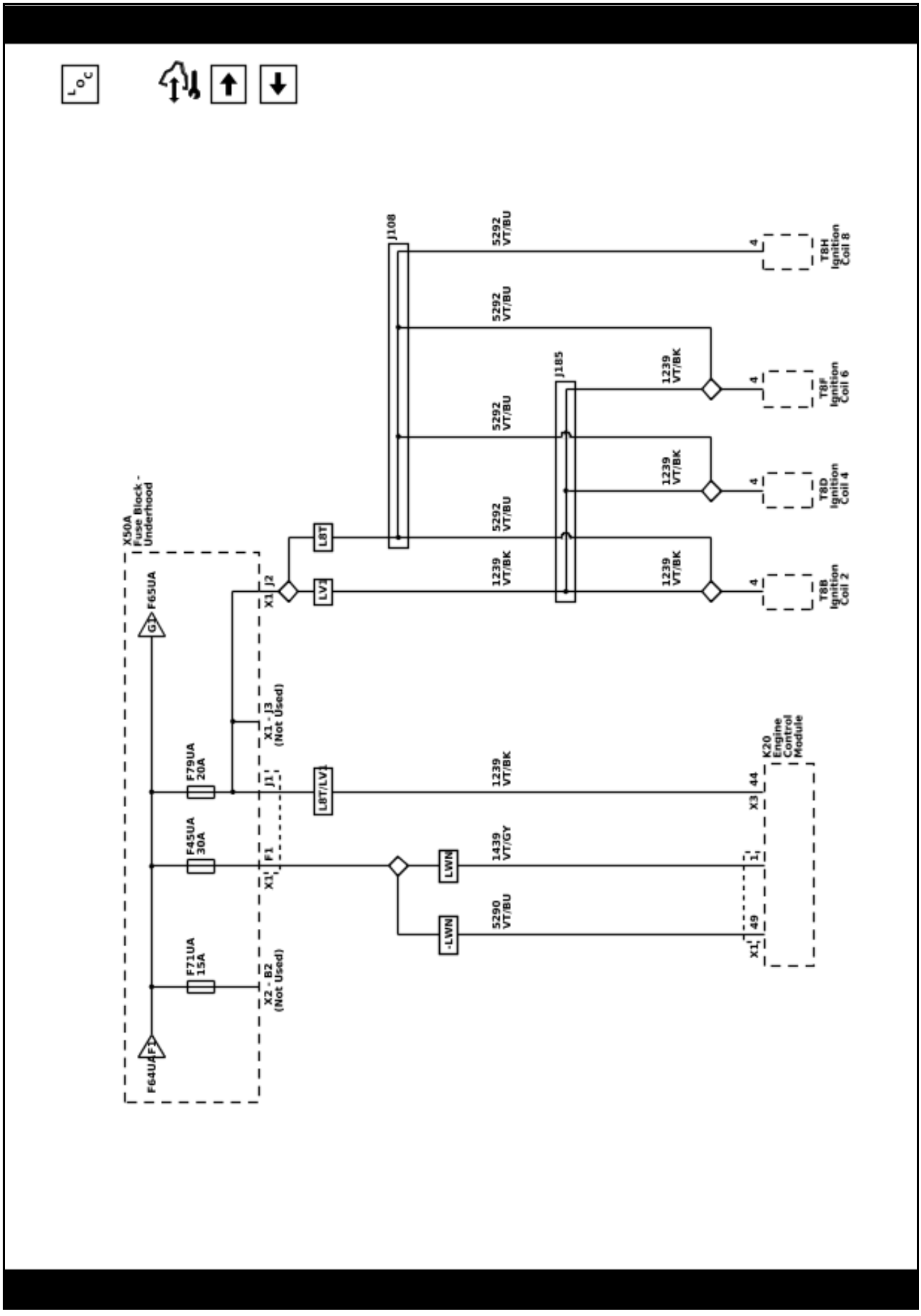
Power Distribution Schematics (Fuses F6UA, F10UA, F17UA, F28UA, F29UA, F30UA, and F31UA)



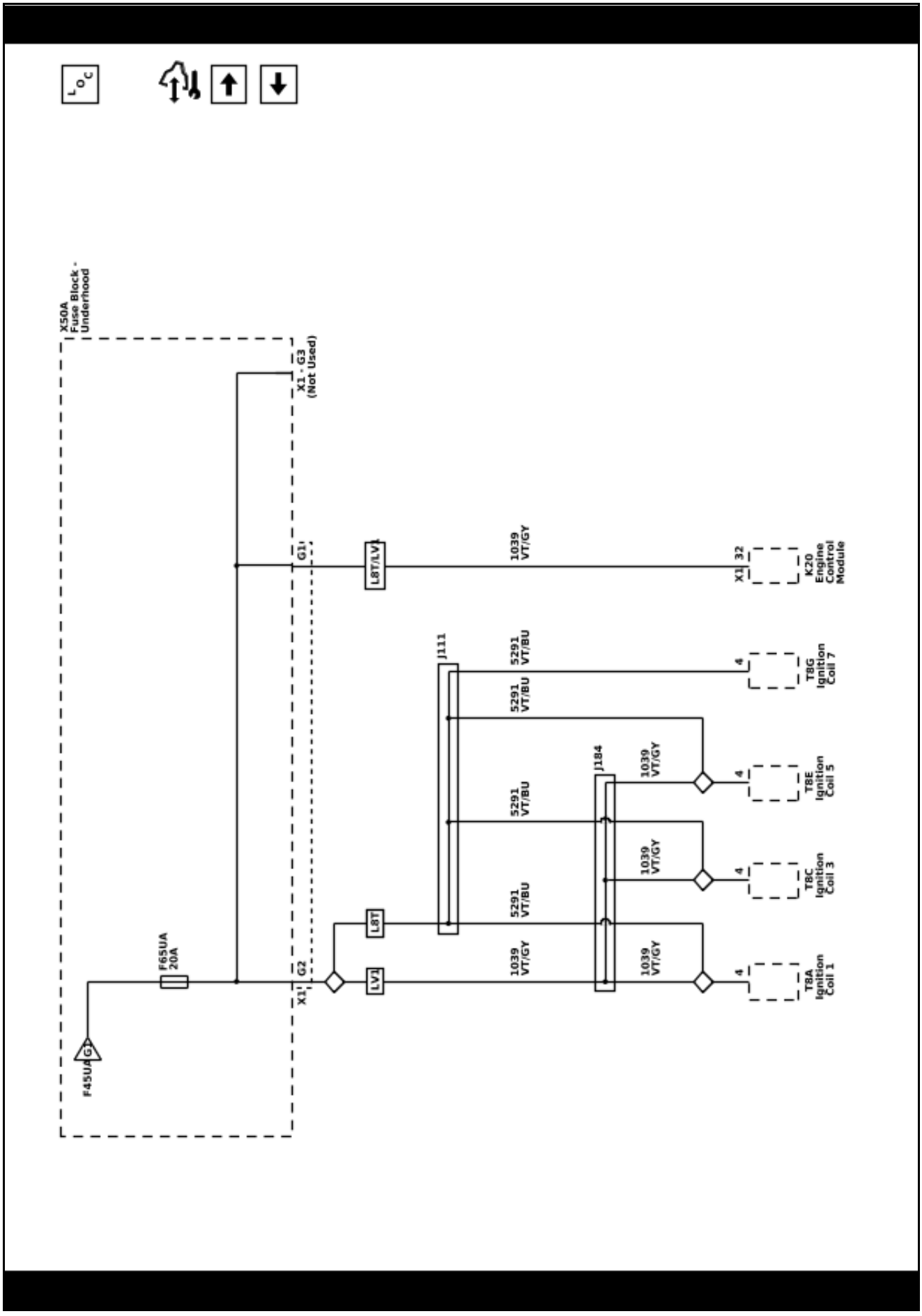
Power Distribution Schematics (Fuses F61UA, F62UA, F64UA, F76UA, F77UA, and F78UA)



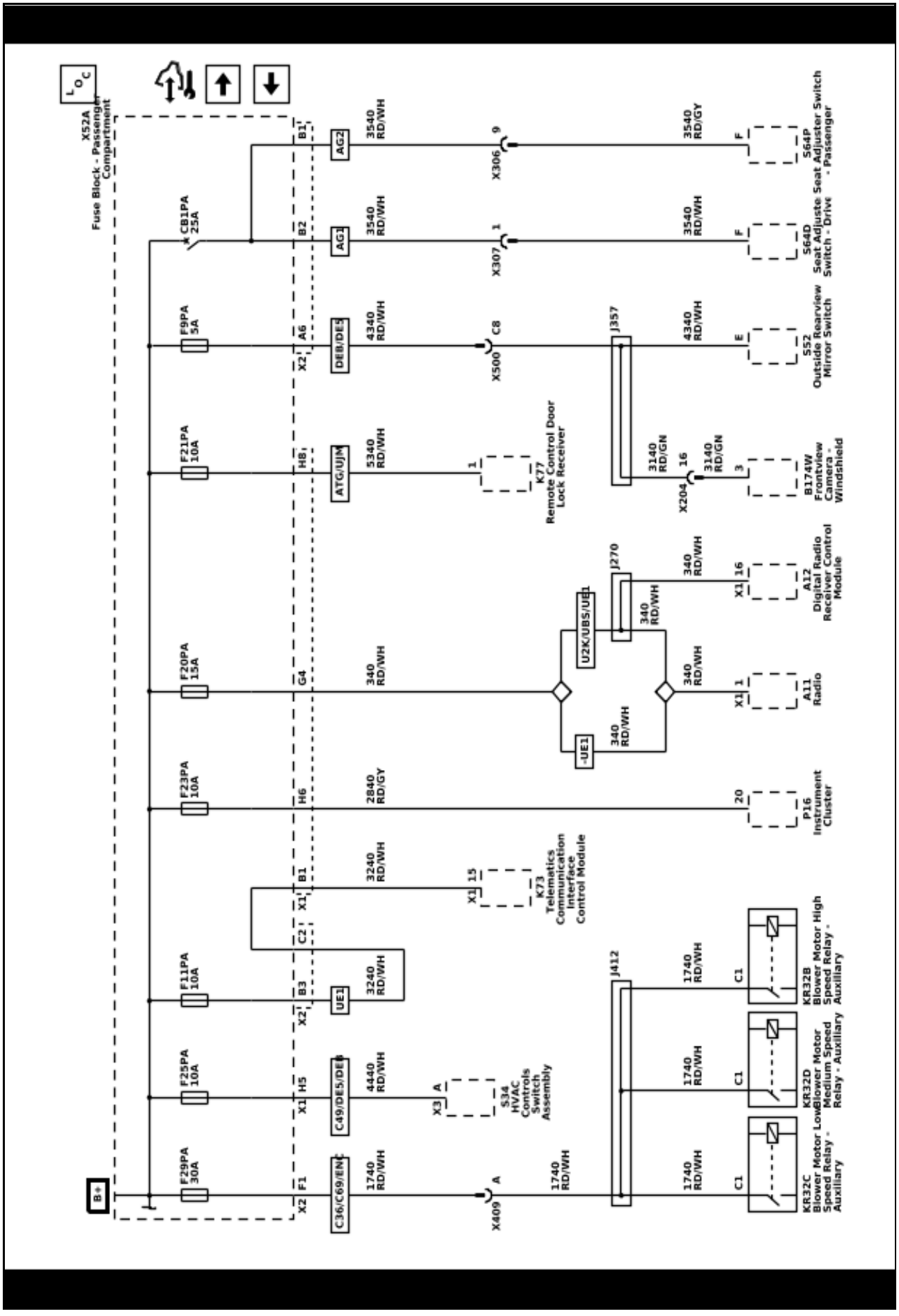
Power Distribution Schematics (Fuses F45UA, F71UA, and F79UA)



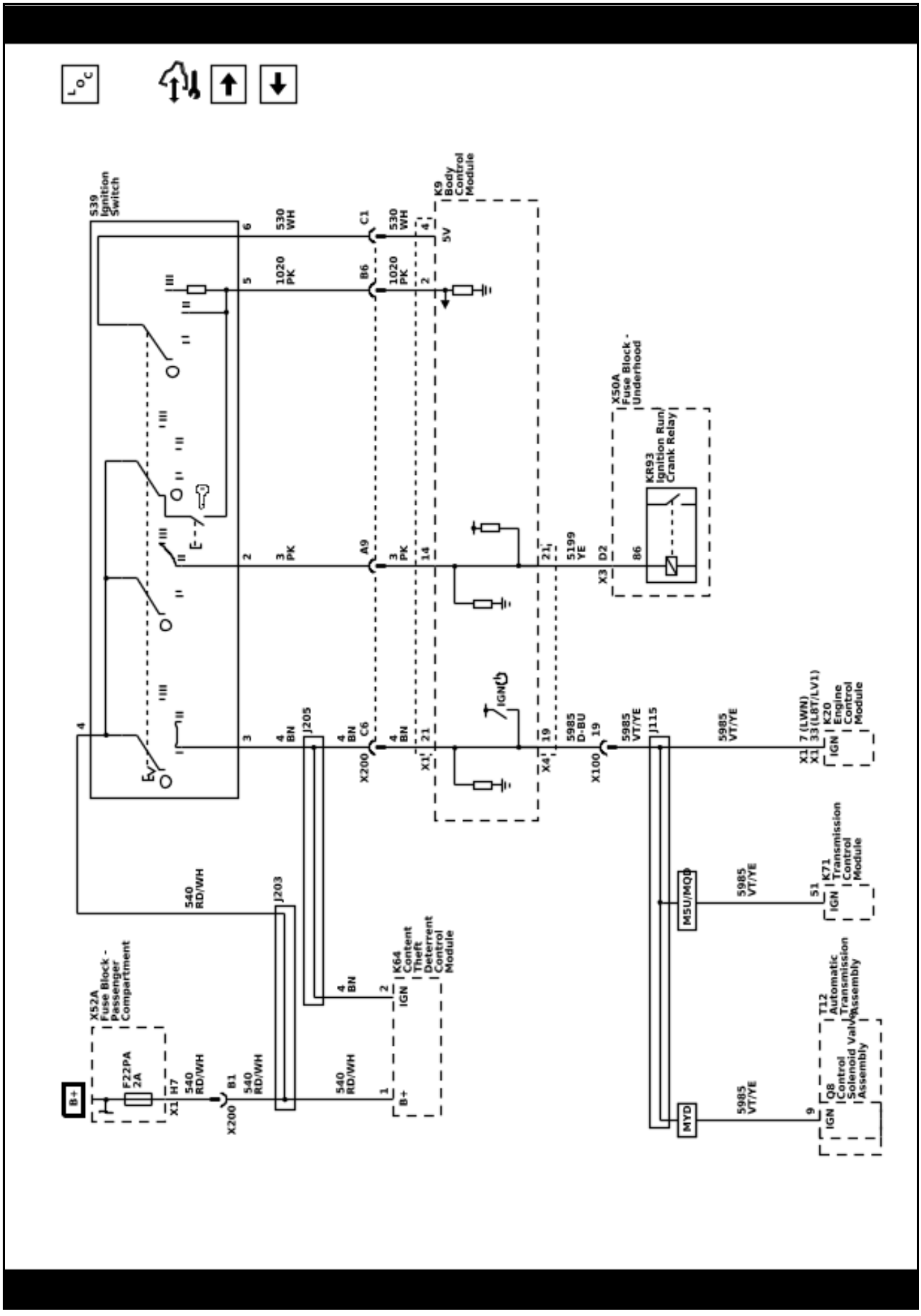
Power Distribution Schematics (Fuse F65UA)



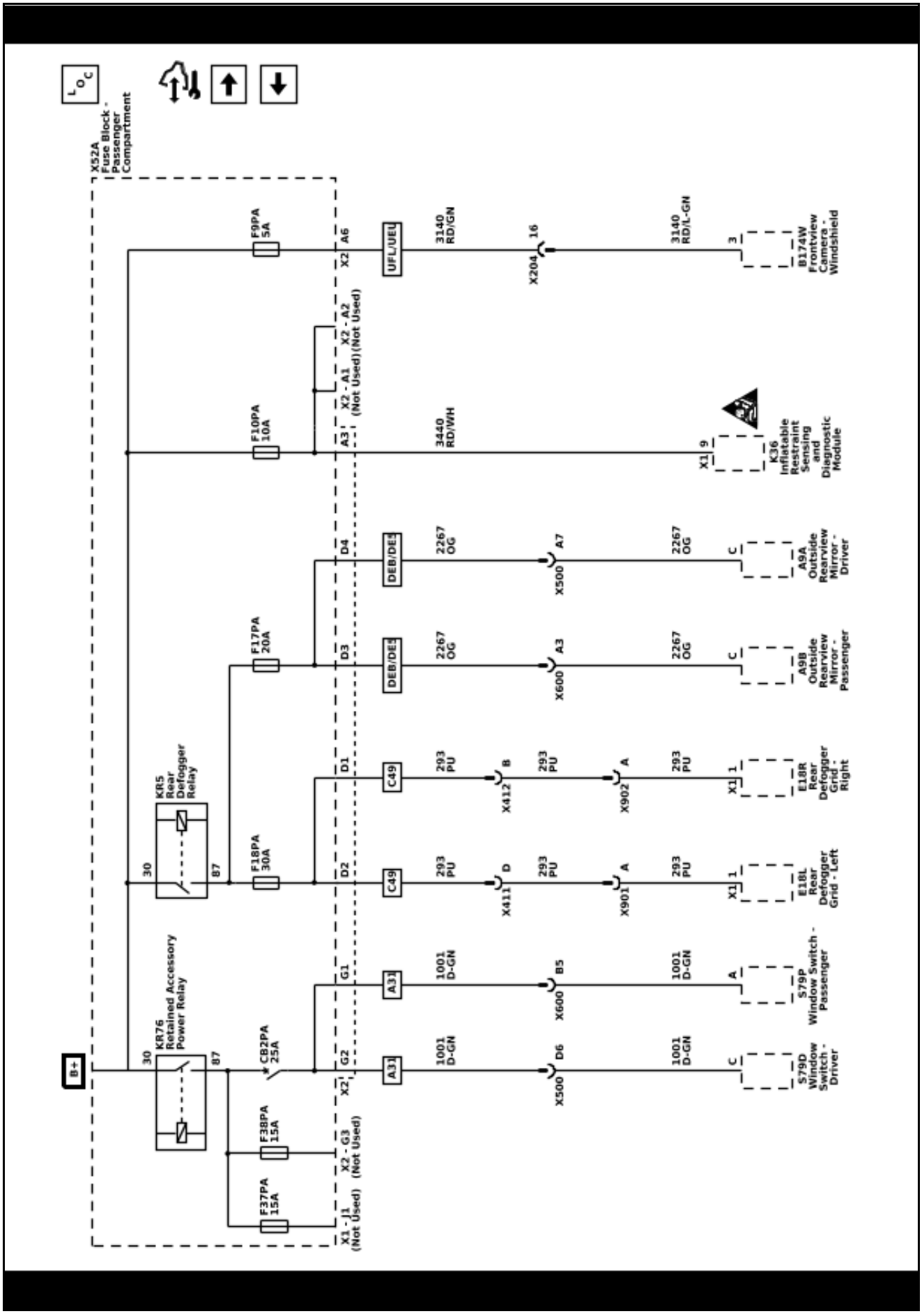
Power Distribution Schematics (Fuses F9PA, F11PA, F20PA, F21PA, F23PA, F25PA, F29PA, and Circuit Breaker CB1PA)



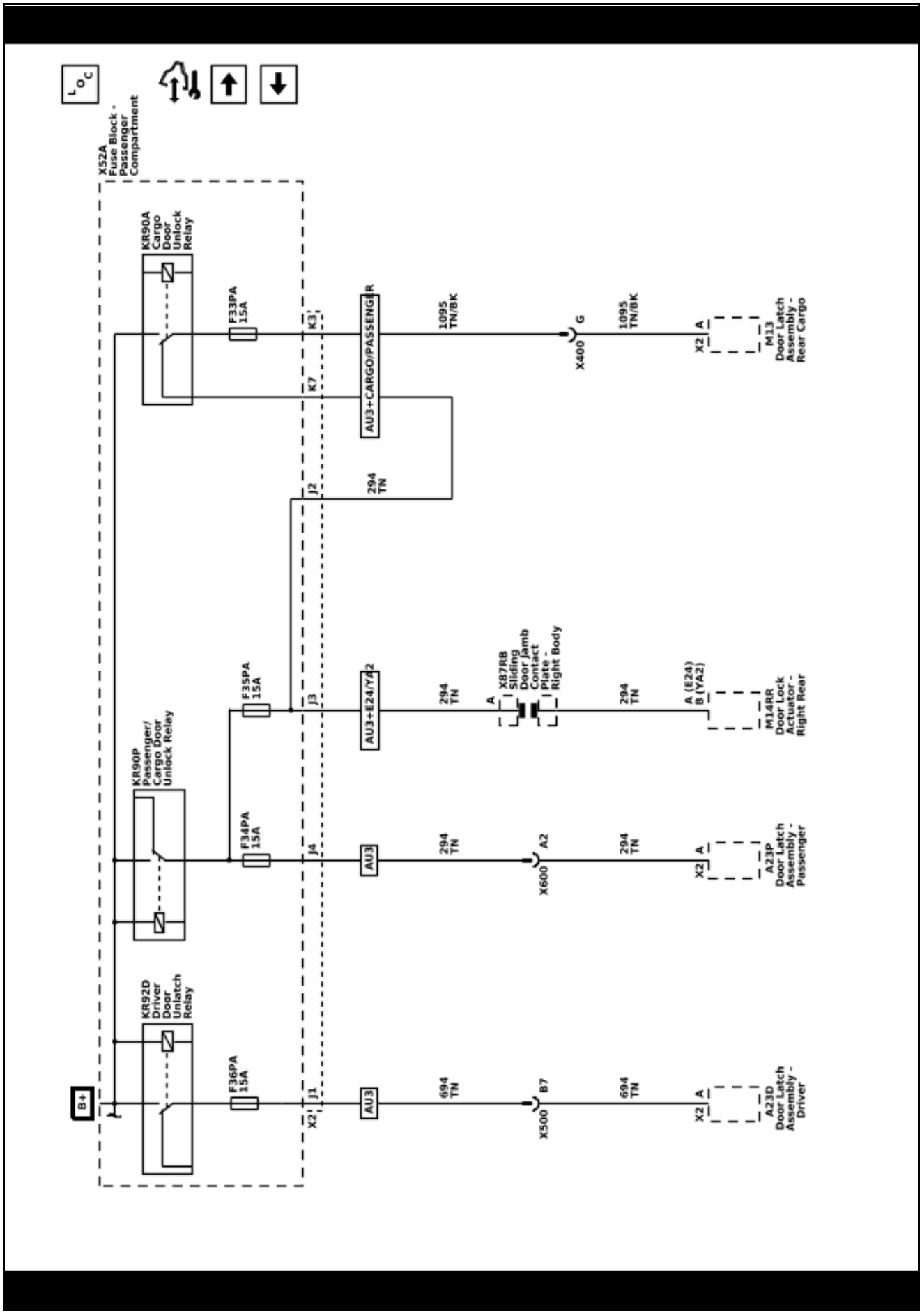
Power Distribution Schematics (Ignition Switch and Fuse F22PA)



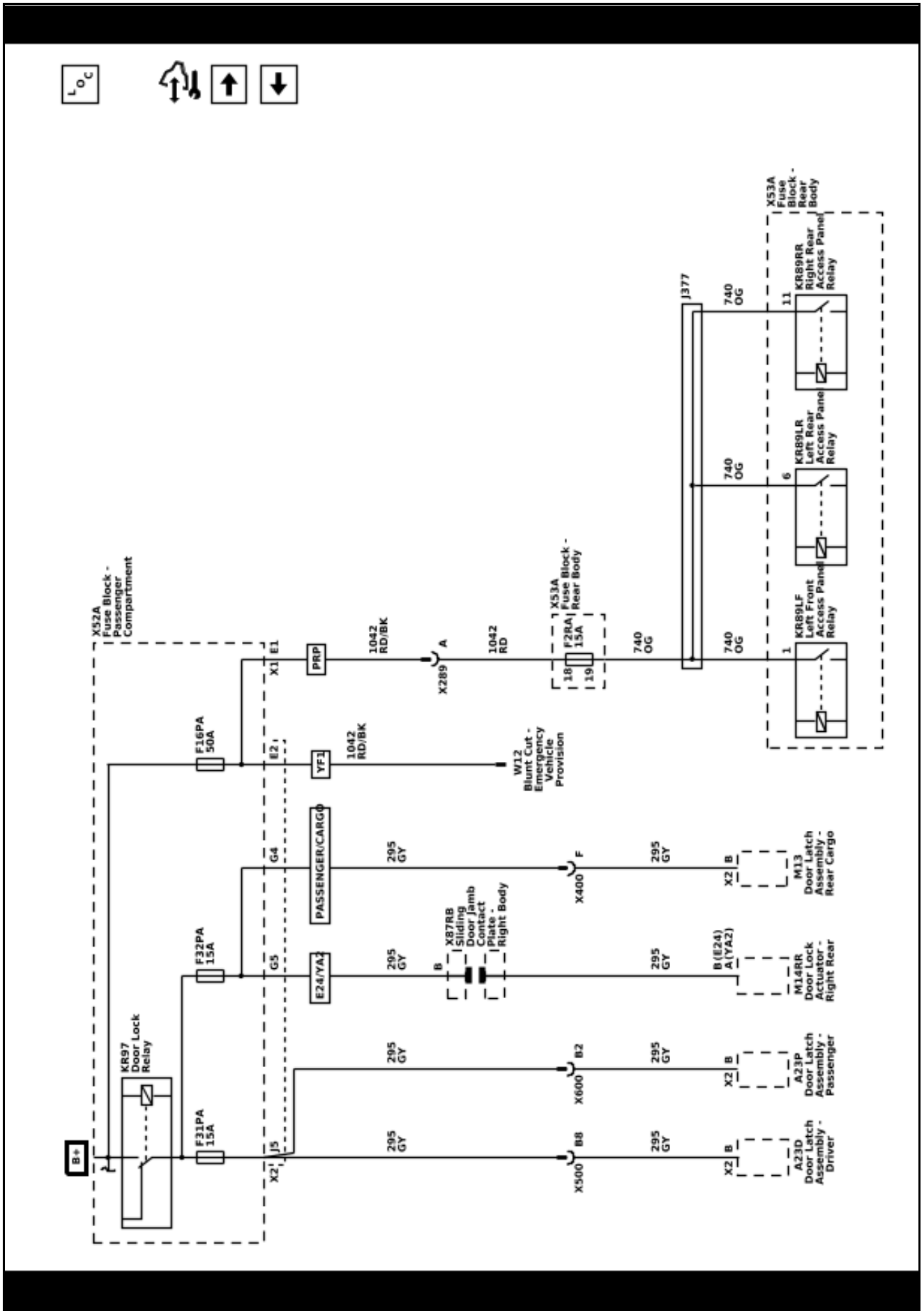
Power Distribution Schematics (Fuses F10PA, F17PA, F18PA, F37PA, F38PA, and Circuit Breaker CB2PA)



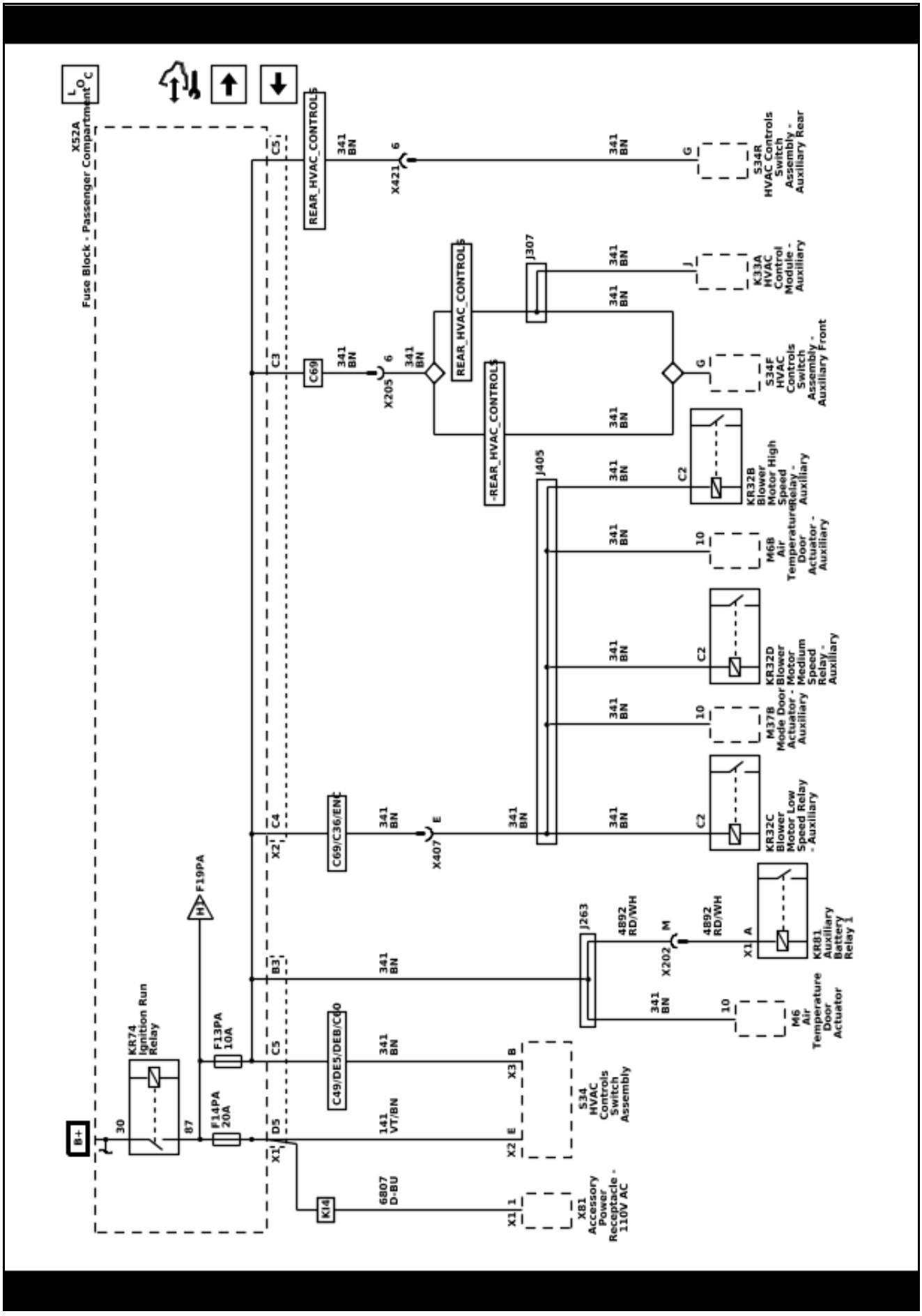
Power Distribution Schematics (Fuses F33PA, F34PA, F35PA, and F36PA)



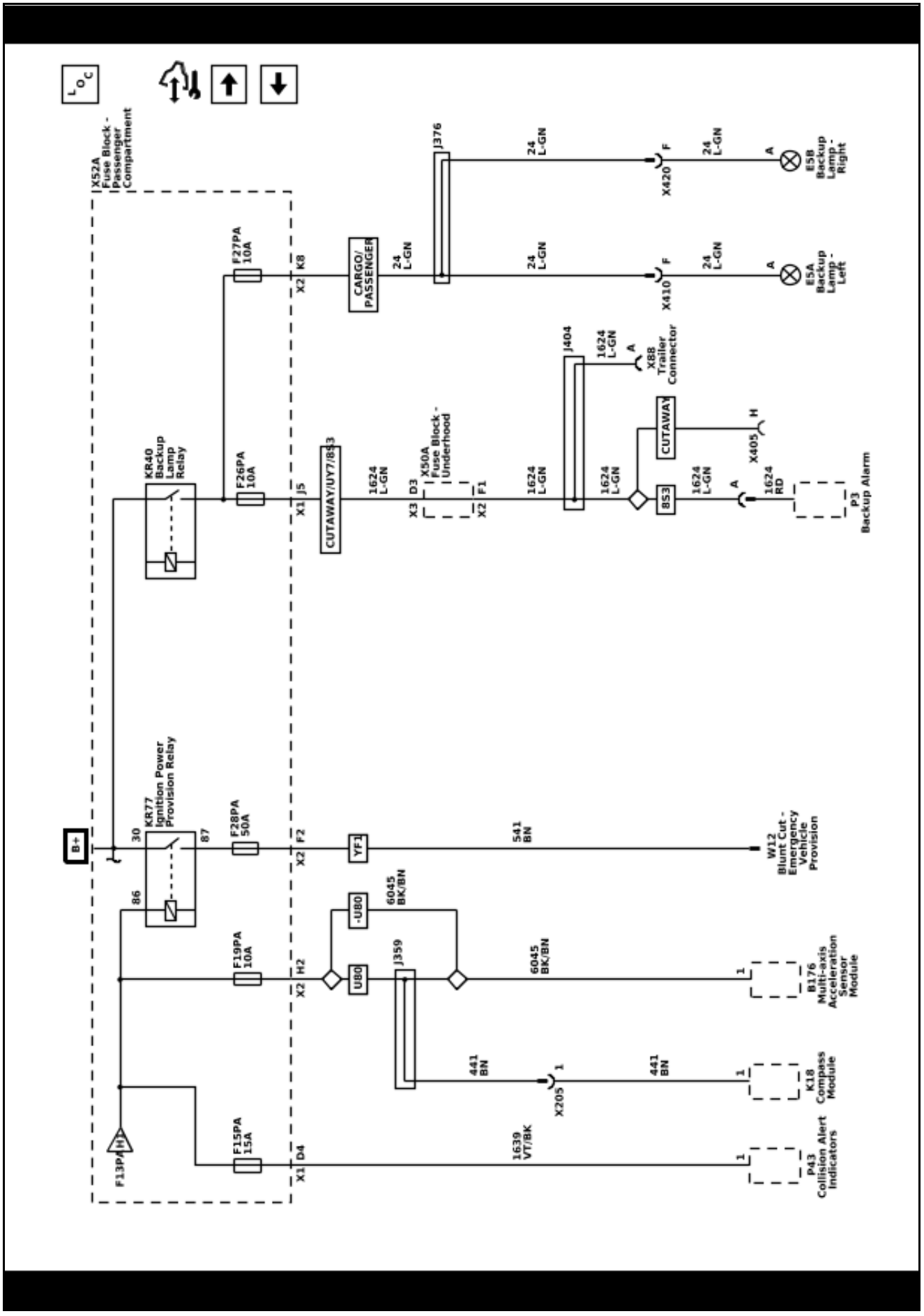
Power Distribution Schematics (Fuses F16PA, F31PA, F32PA, and F2RA)



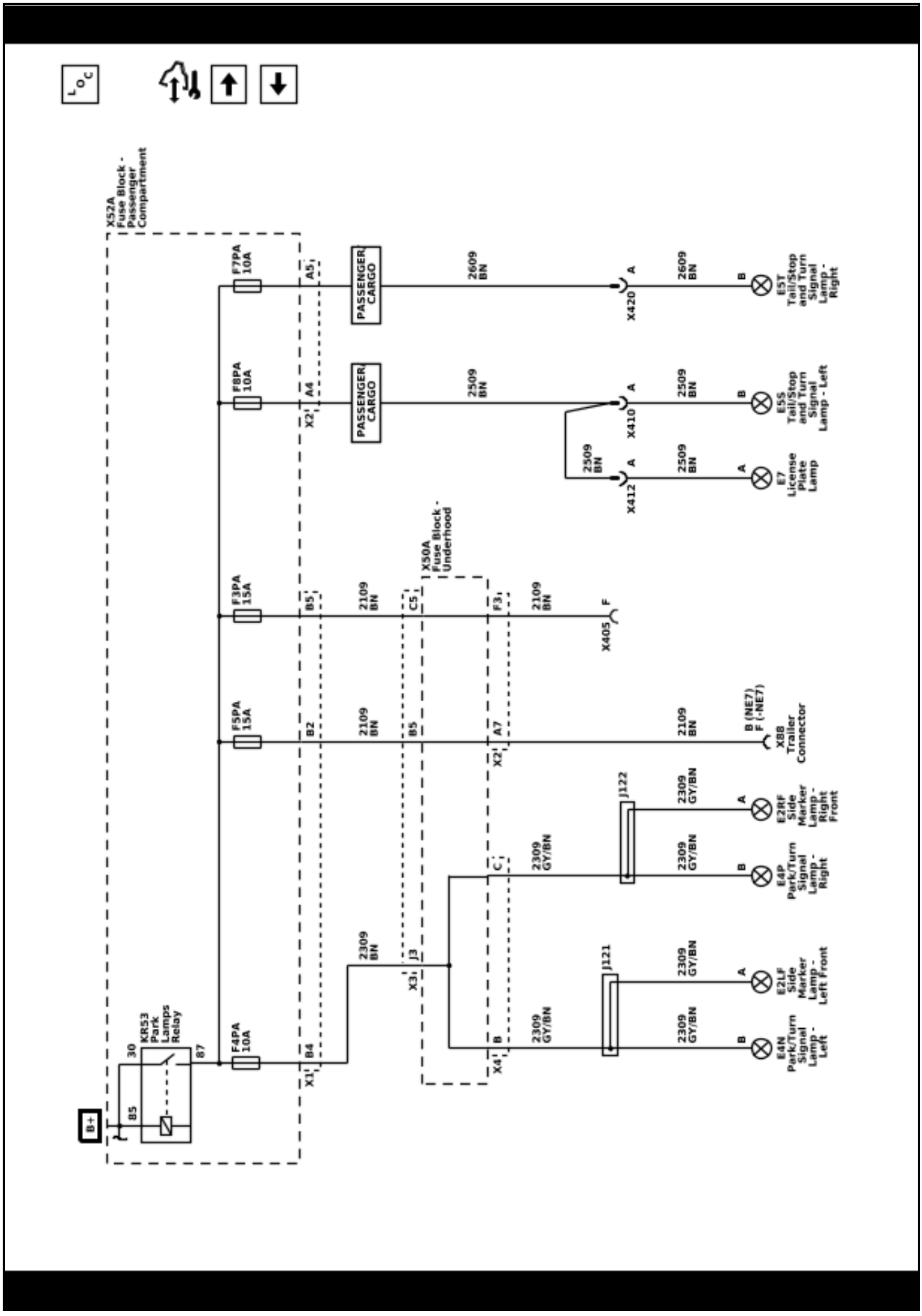
Power Distribution Schematics (Fuses F13PA and F14PA)



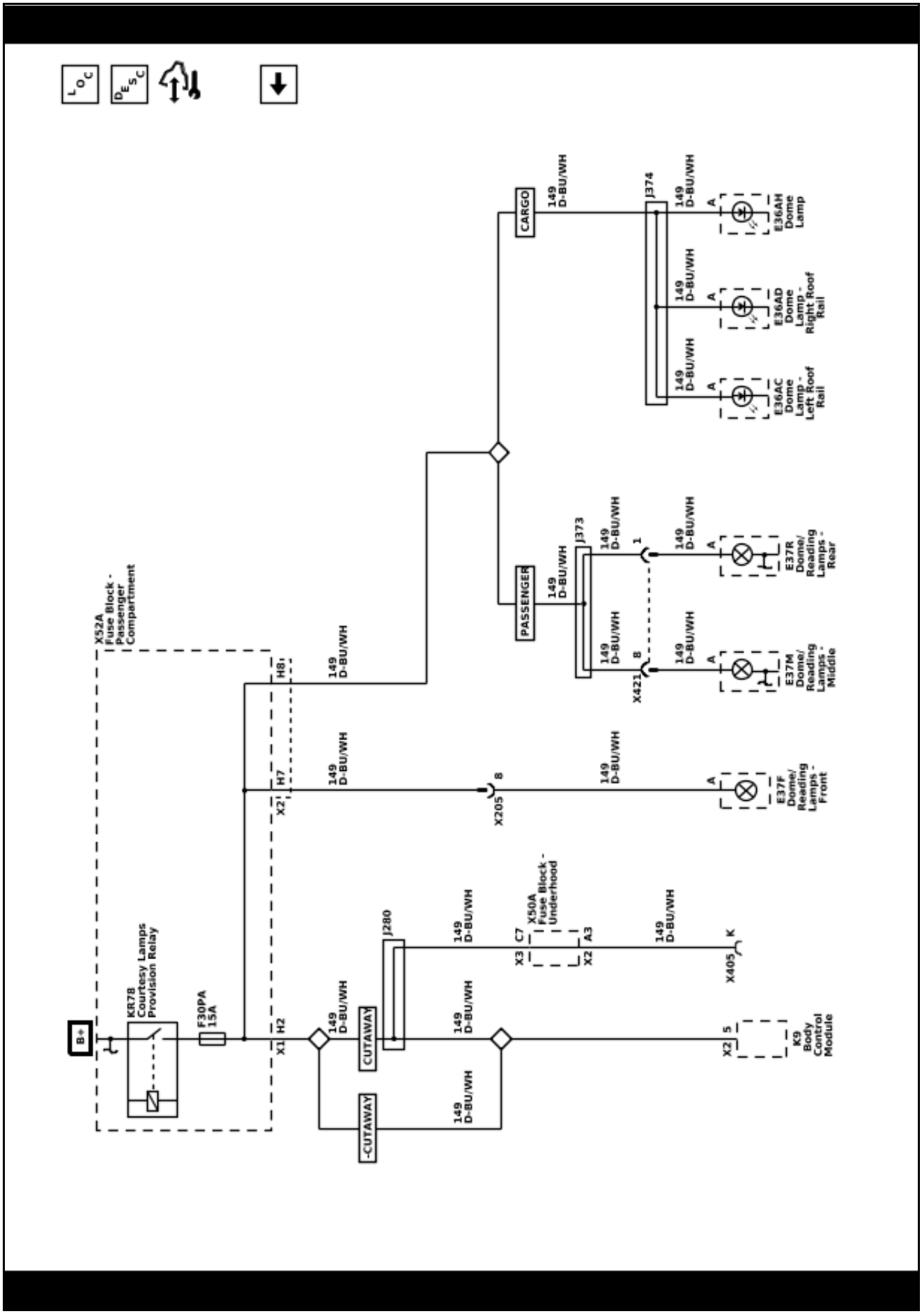
Power Distribution Schematics (Fuses F19PA, F26PA, F27PA, and F28PA)



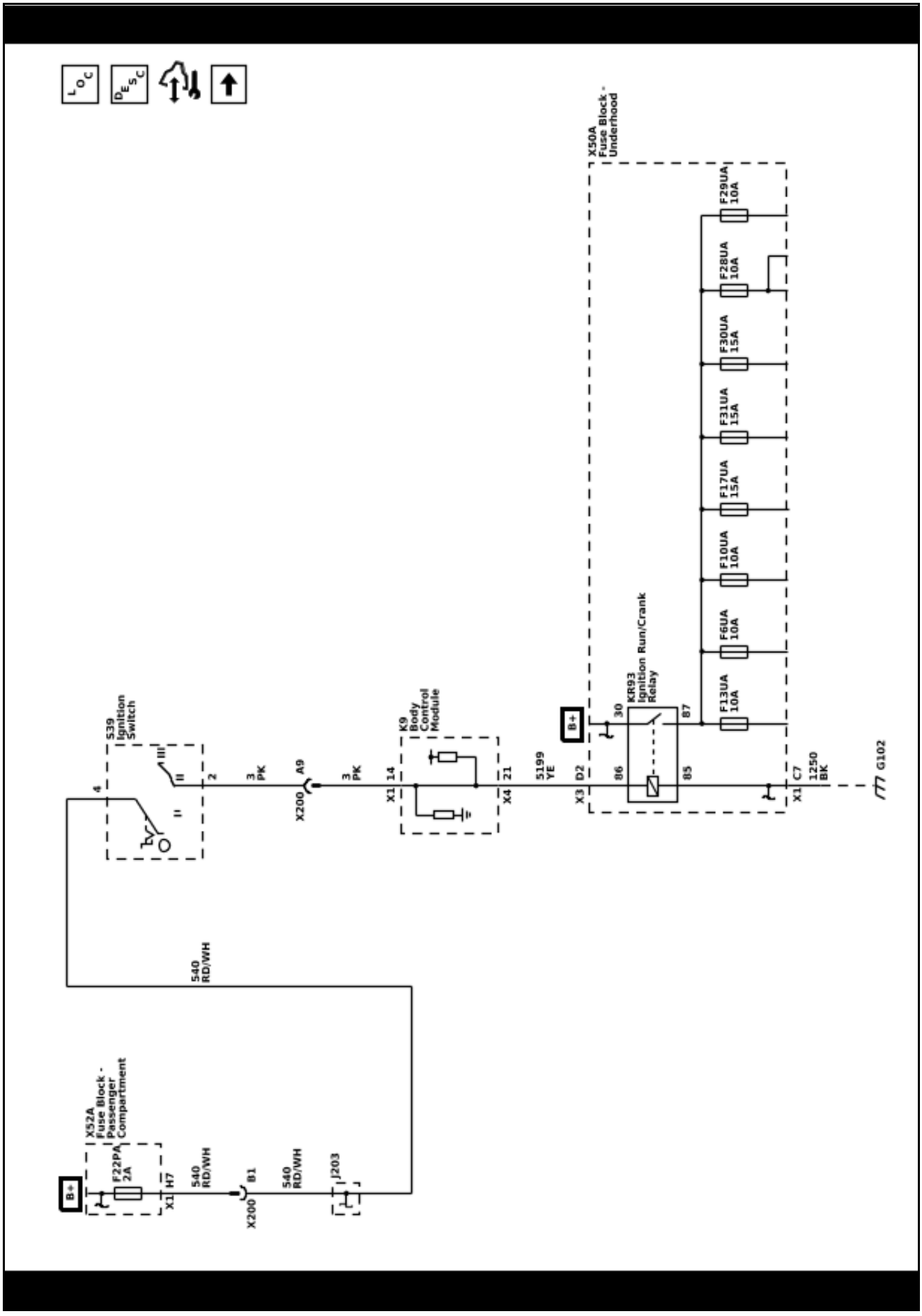
Power Distribution Schematics (Fuses F3PA, F4PA, F5PA, F7PA, and F8PA)



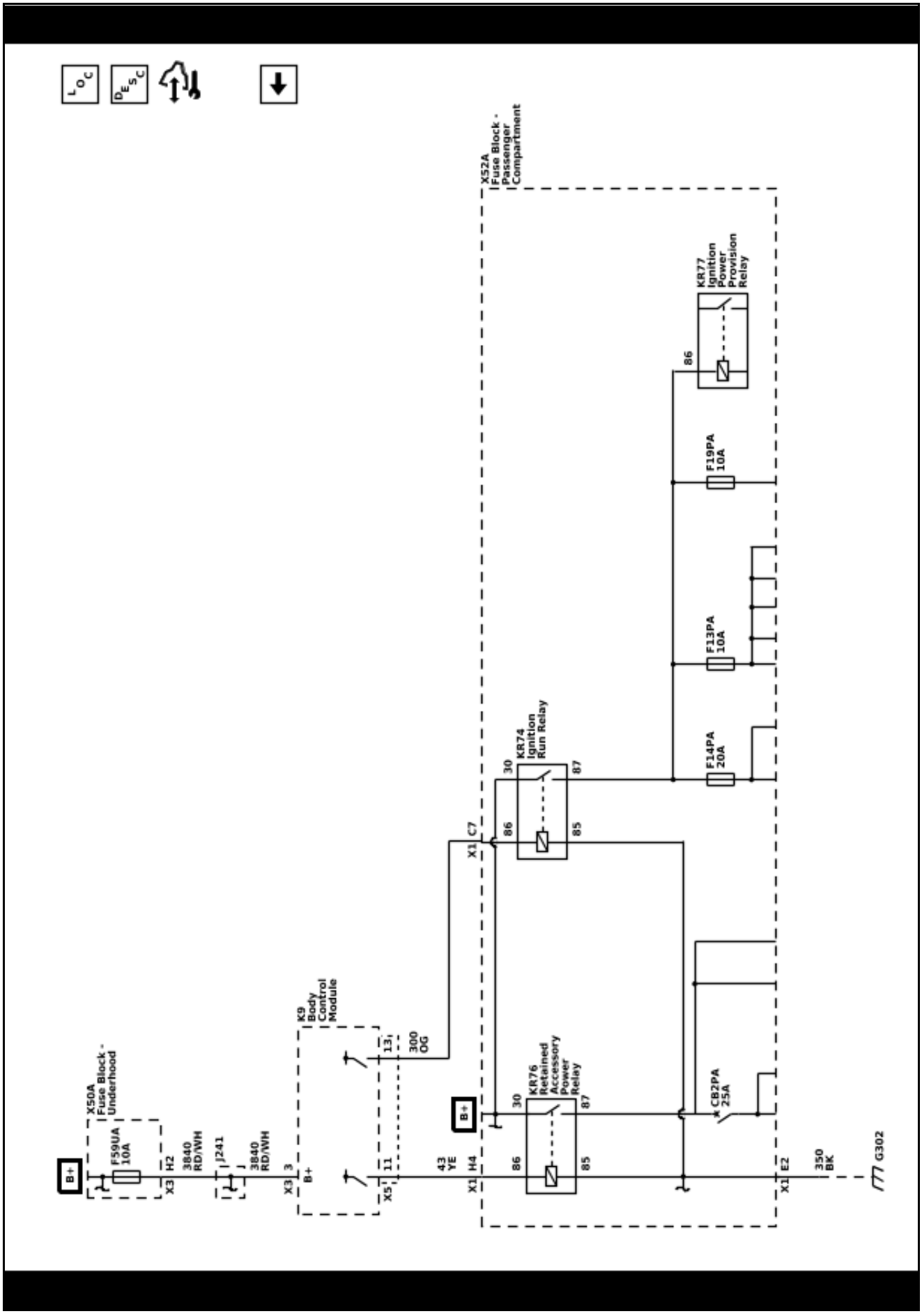
Power Distribution Schematics (Fuse F30PA)



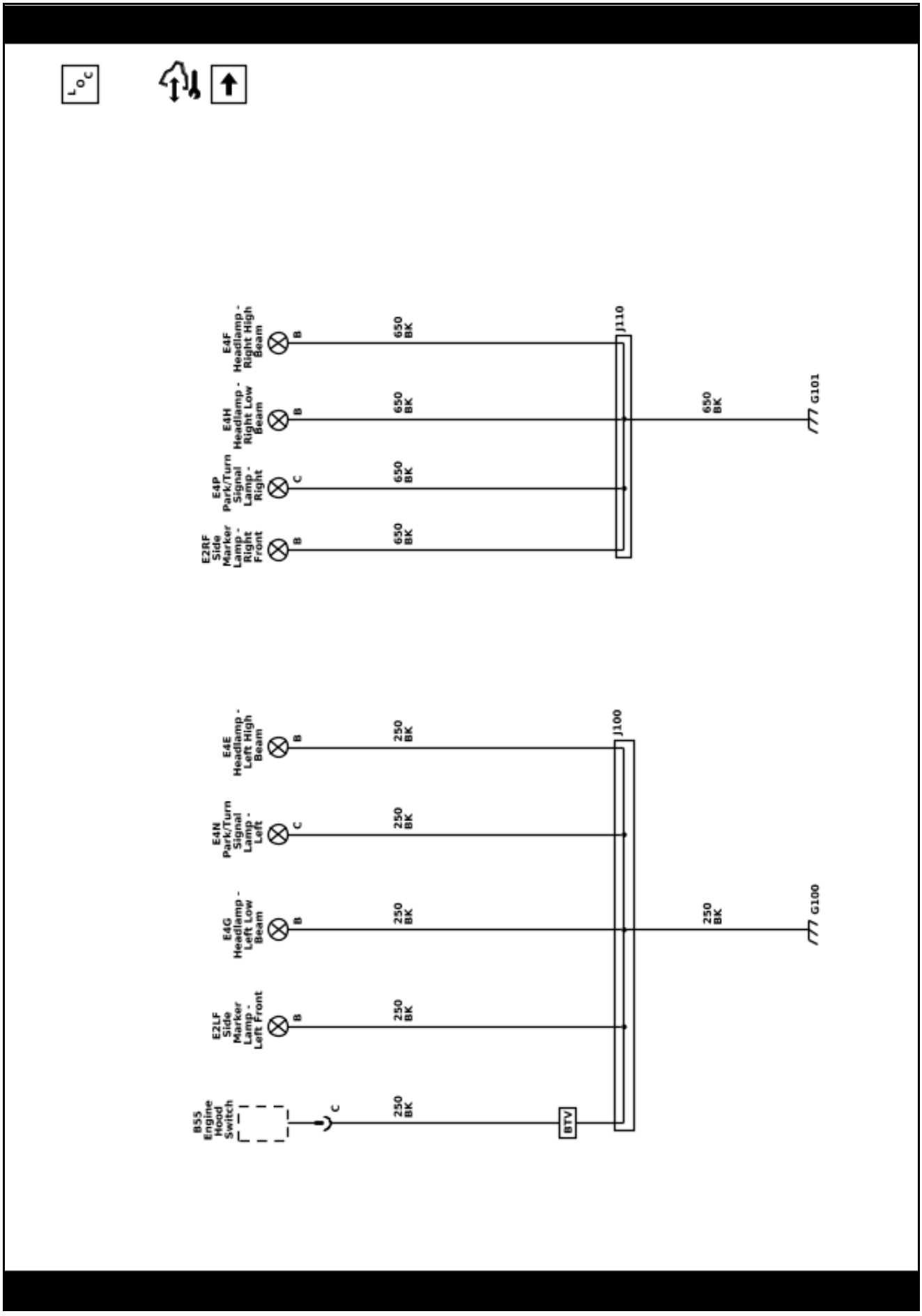
Power Moding Schematics (Ignition Run/Crank Relay)



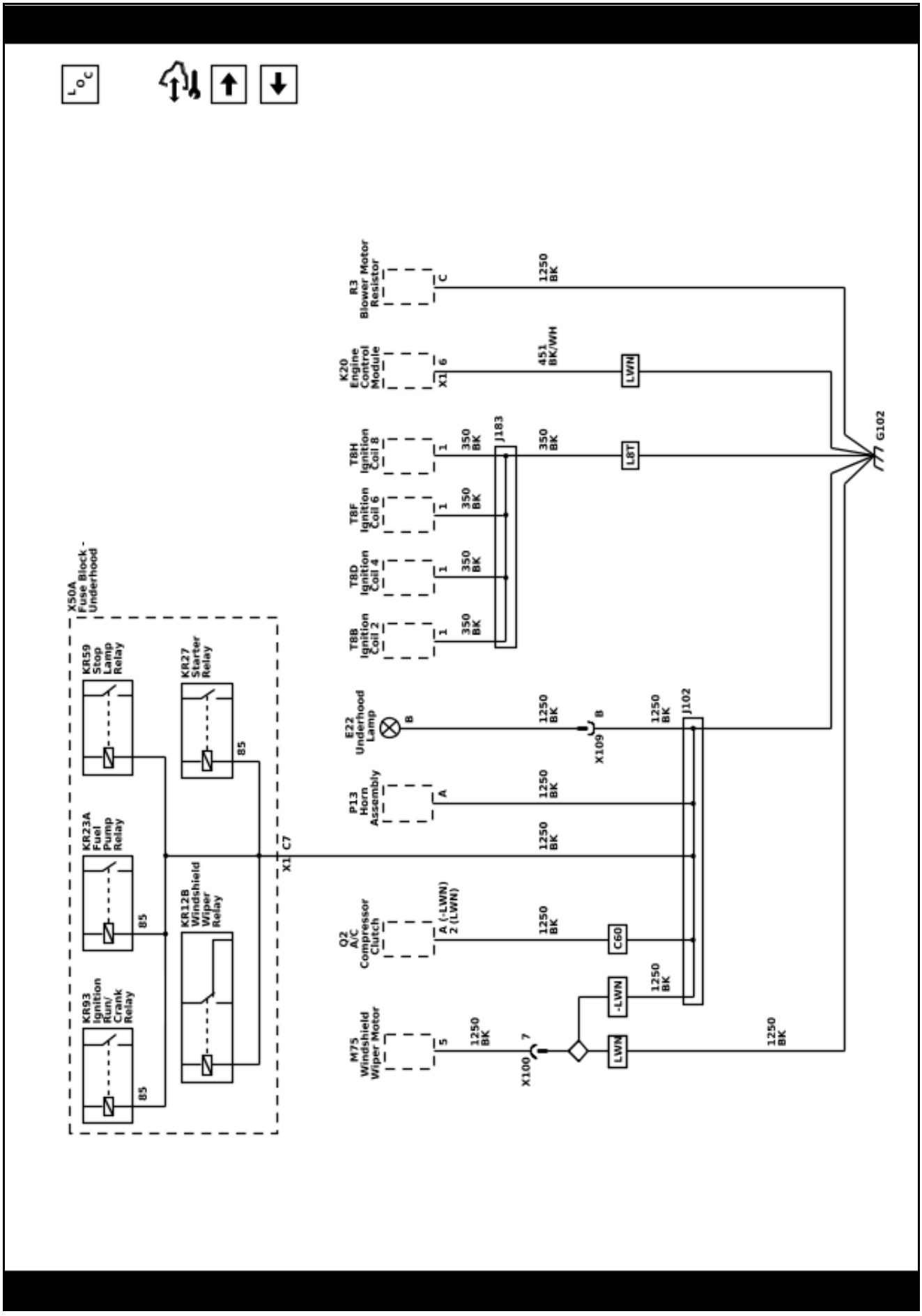
Power Moding Schematics (Retained Accessory Power Relay and Ignition Run Relay)



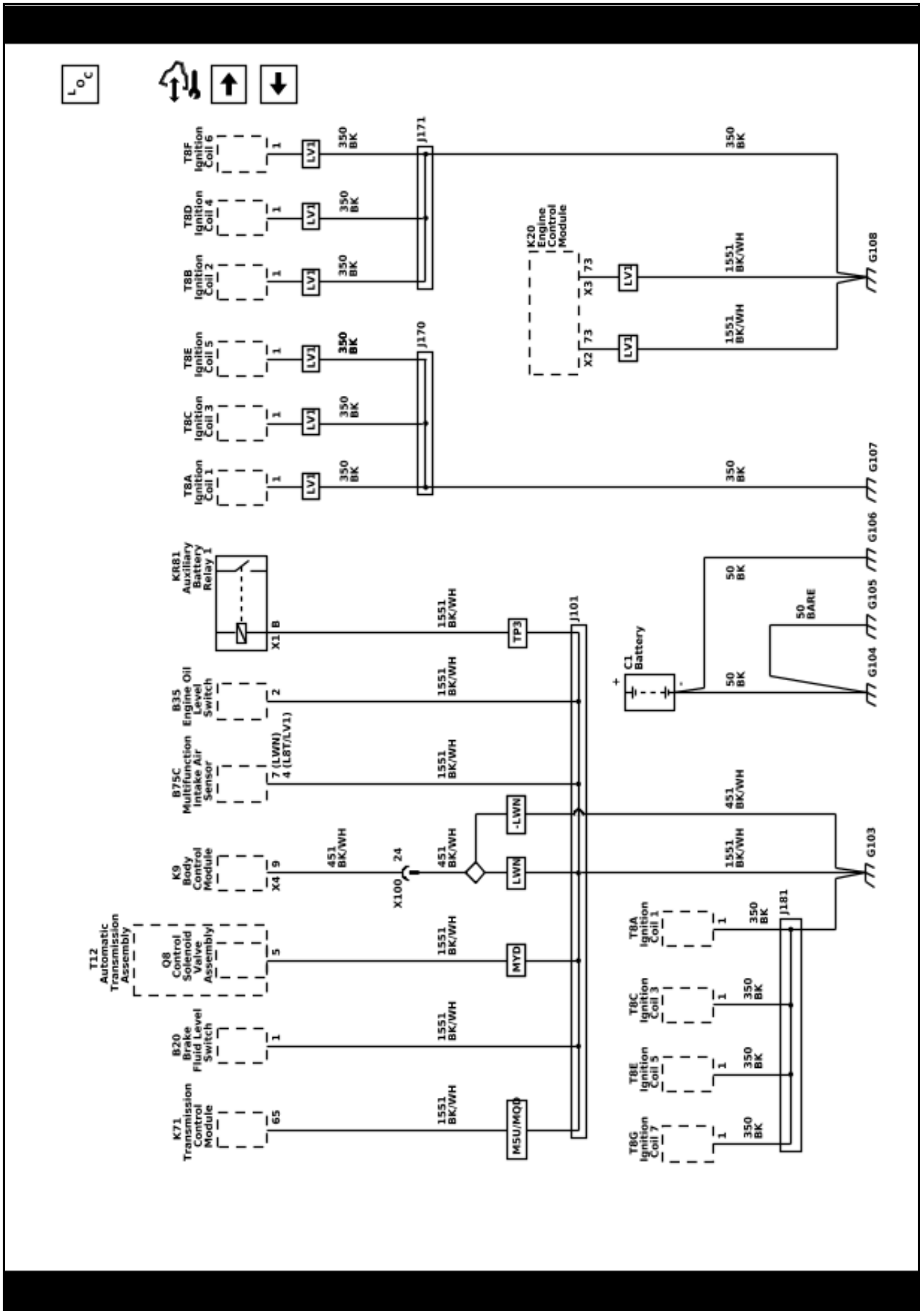
Ground Distribution Schematics (G100 and G101)



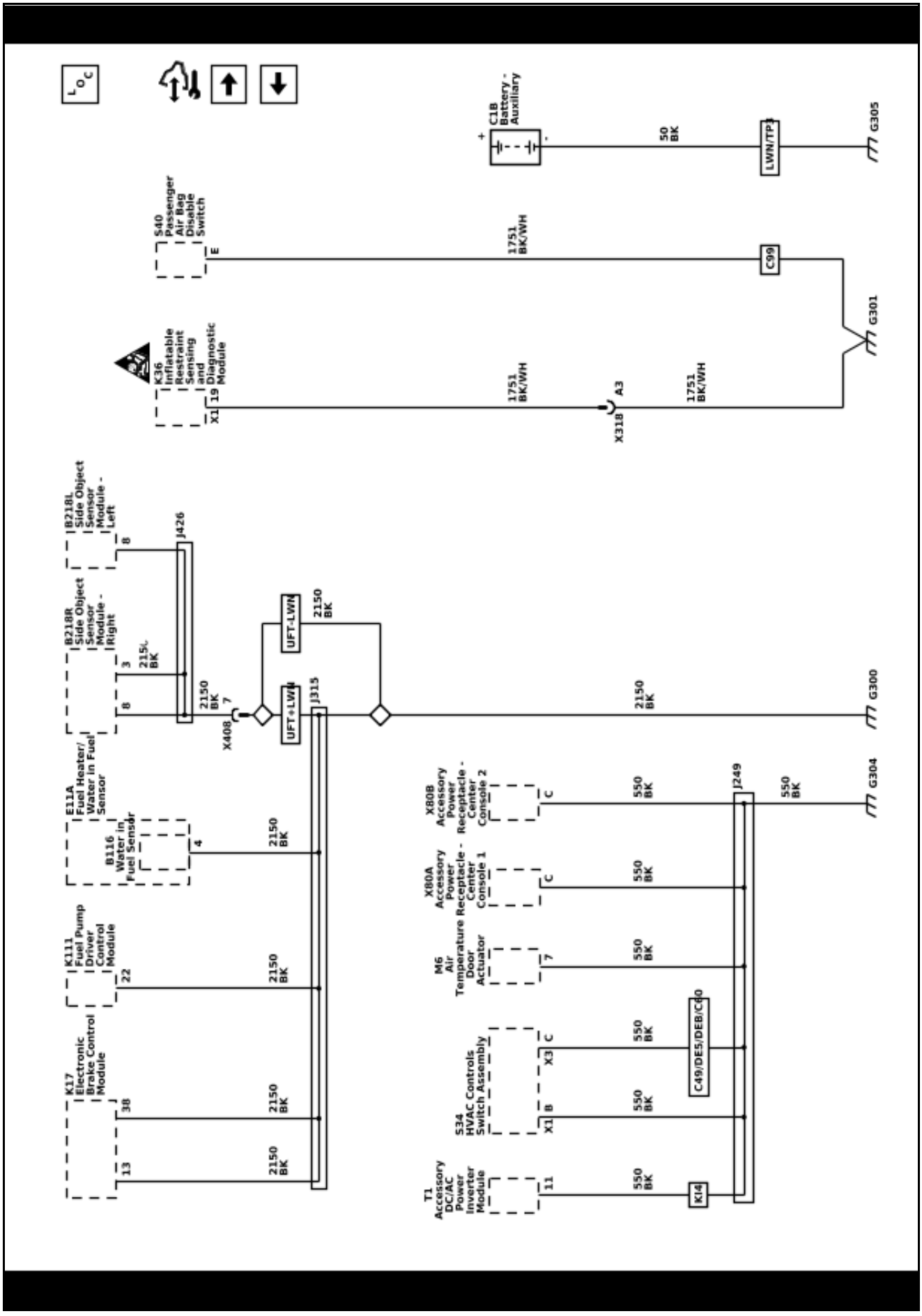
Ground Distribution Schematics (G102)



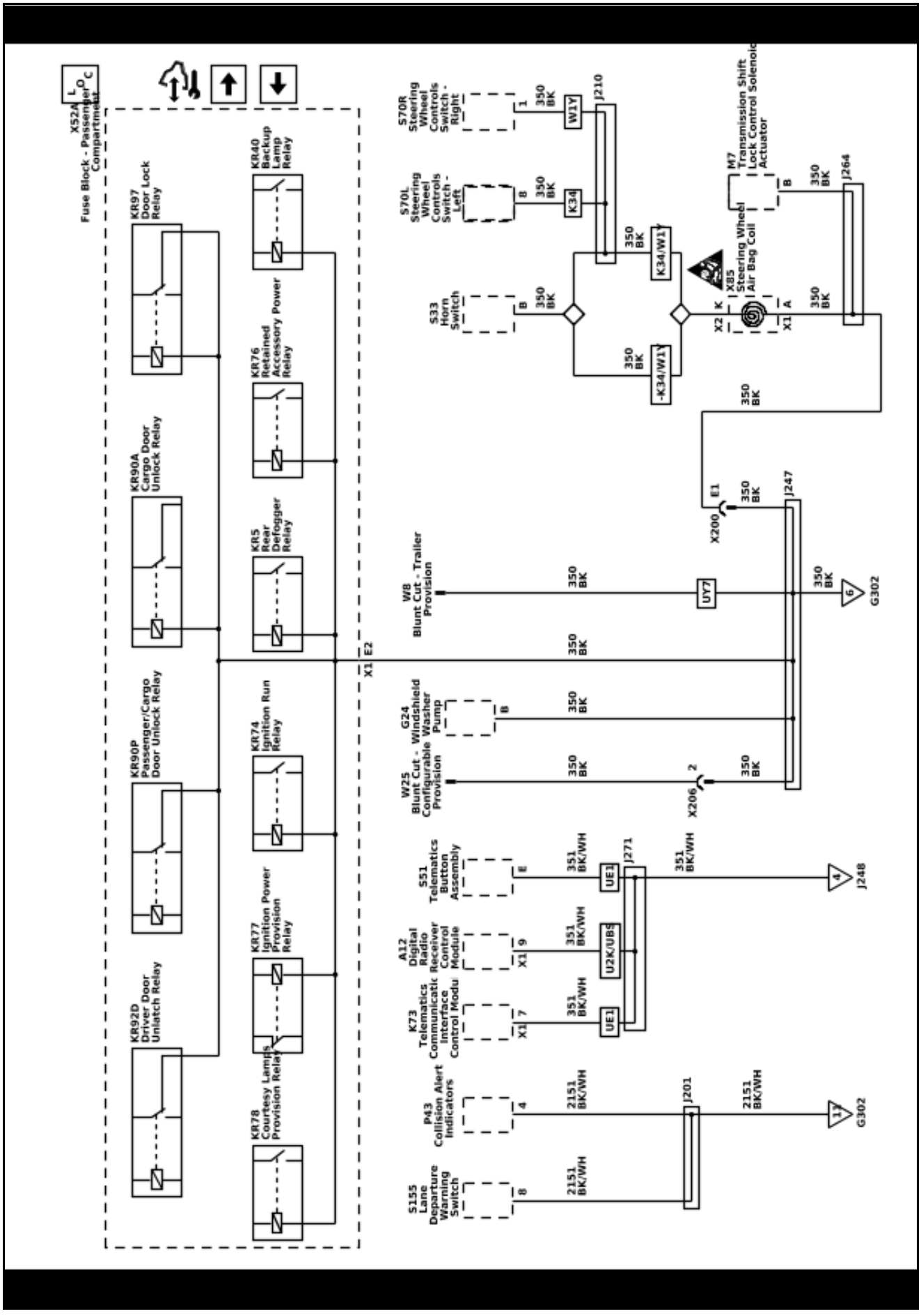
Ground Distribution Schematics (G103, G104, G105, G106, G107 and G108)



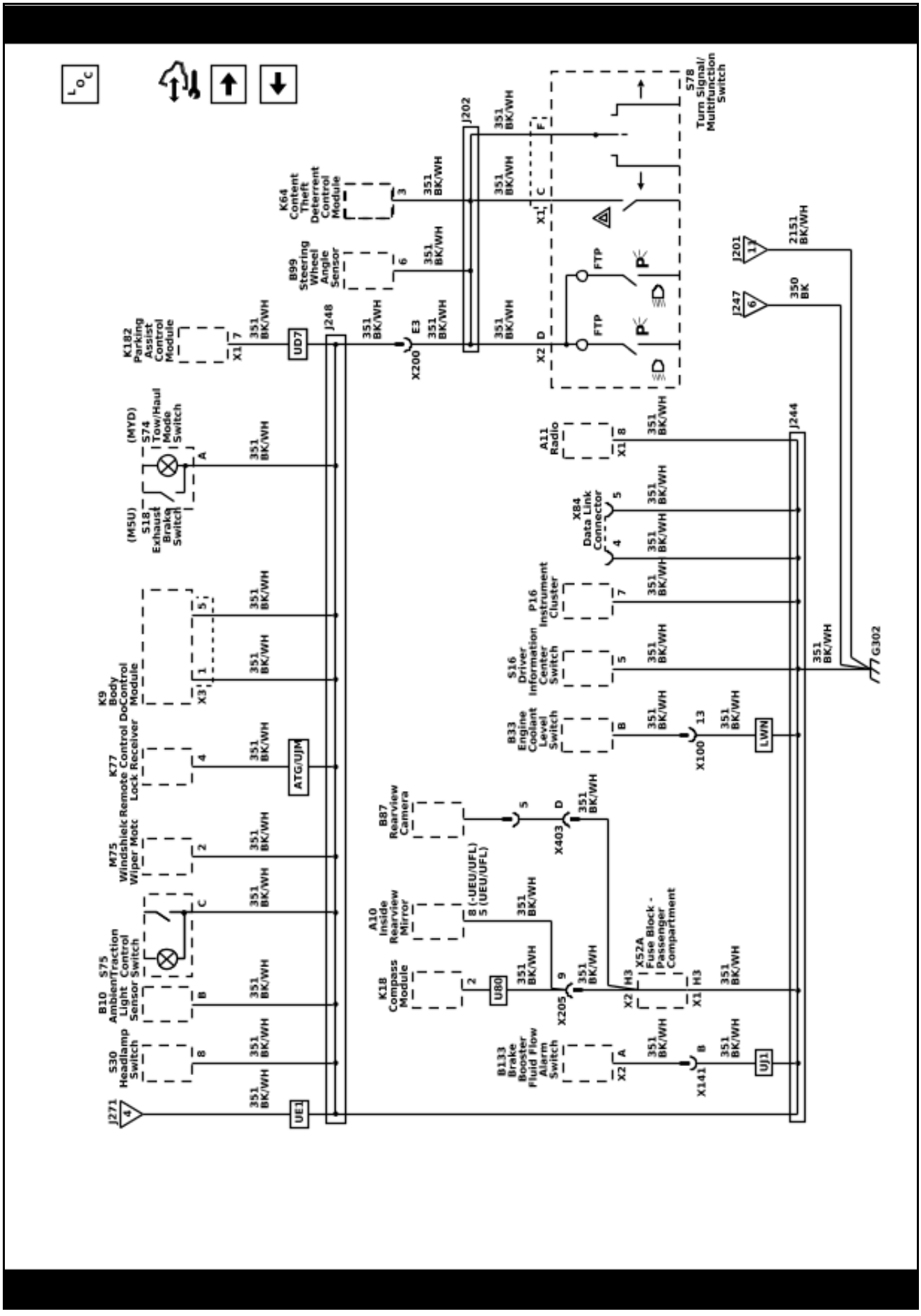
Ground Distribution Schematics (G300, G301, G304, and G305)



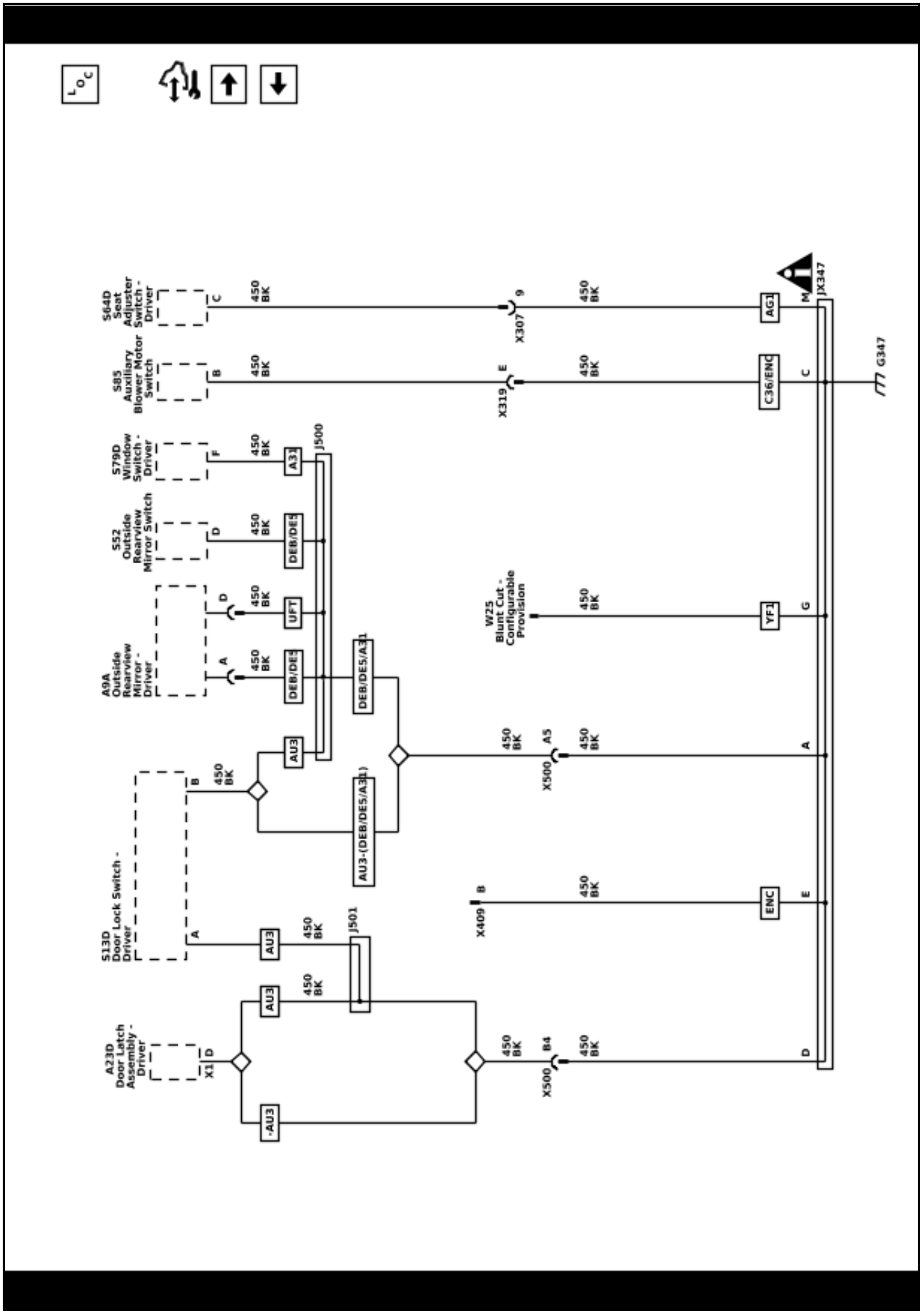
Ground Distribution Schematics (G302 (1 of 2))



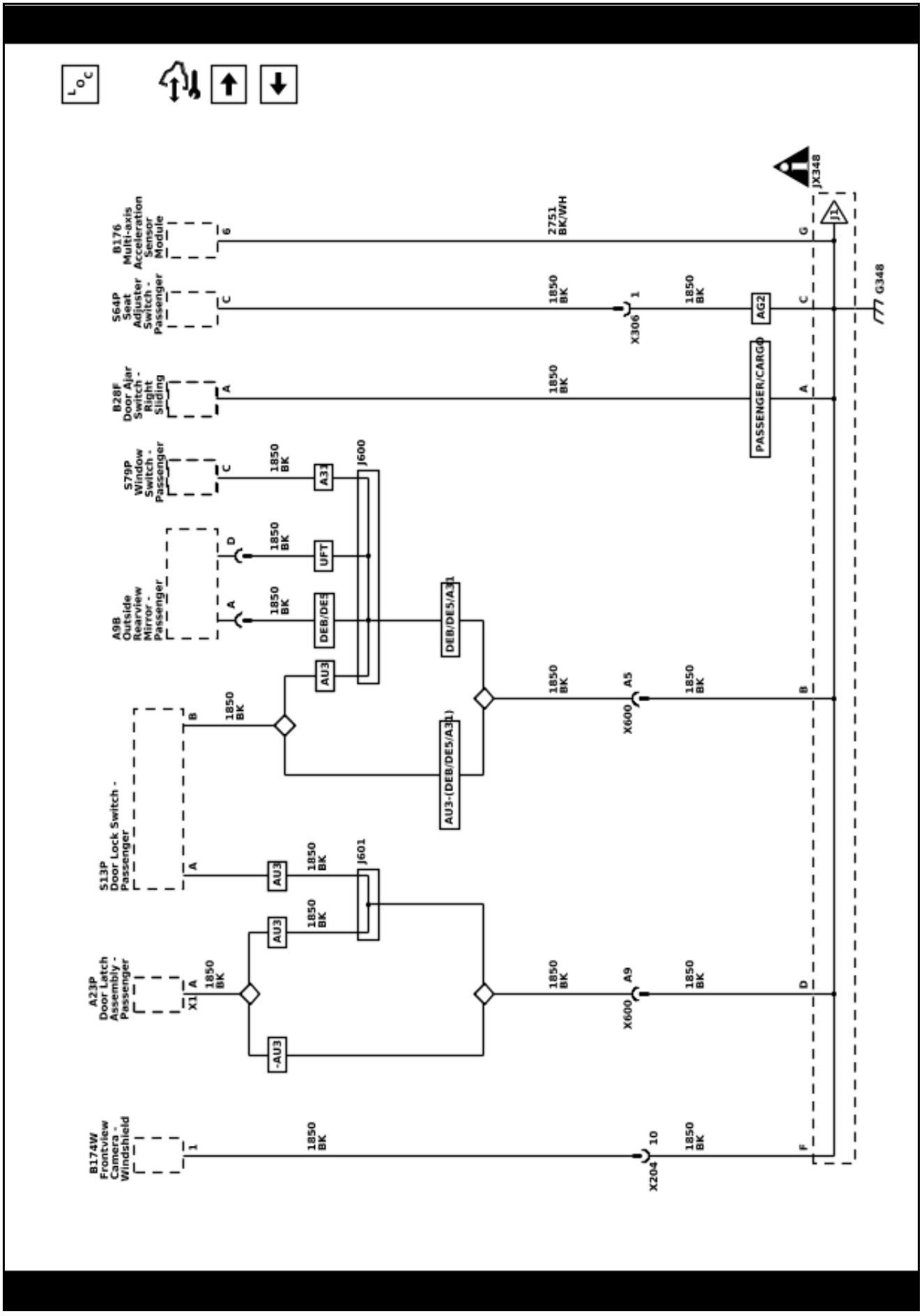
Ground Distribution Schematics (G302 (2 of 2))



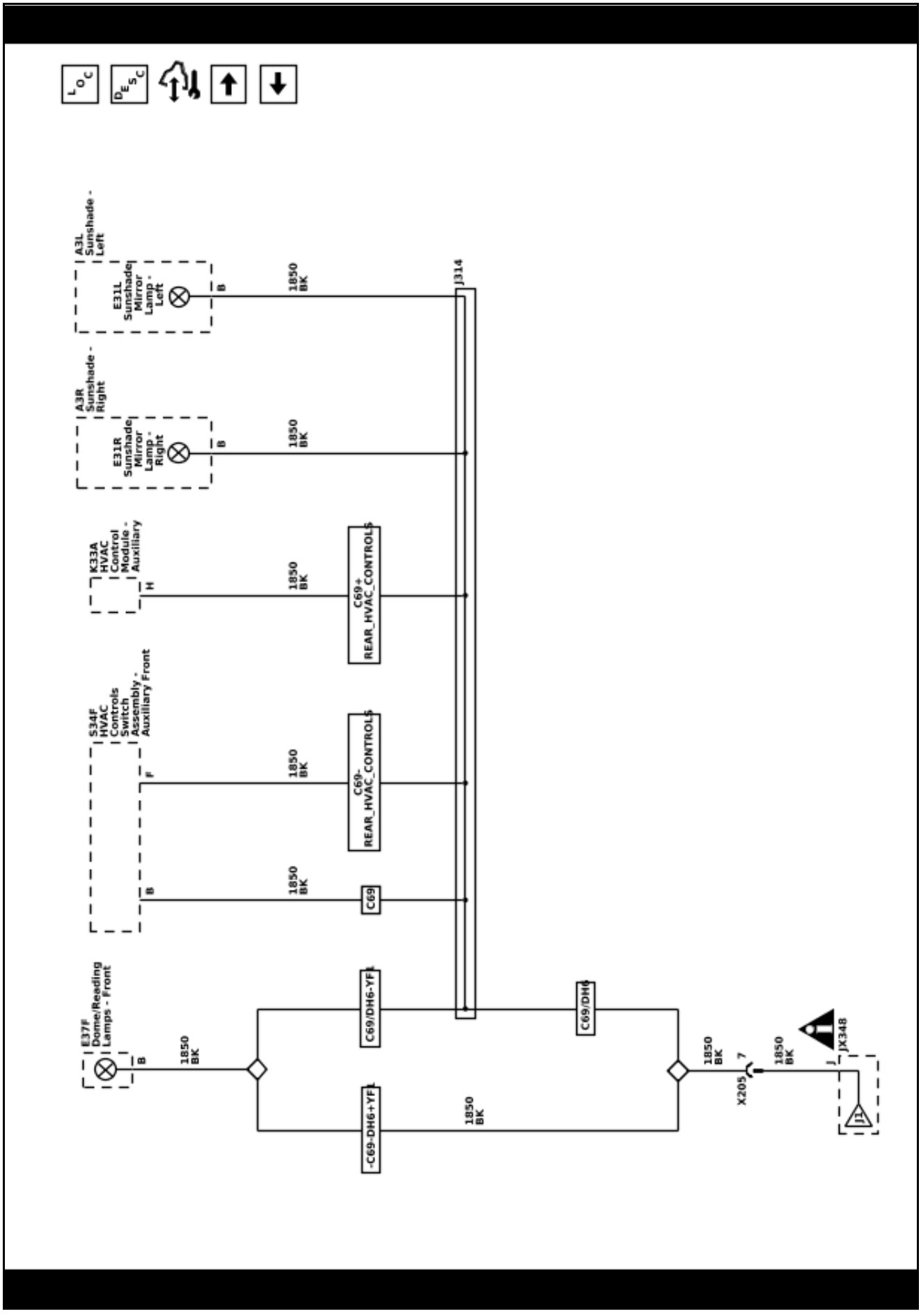
Ground Distribution Schematics (G347)



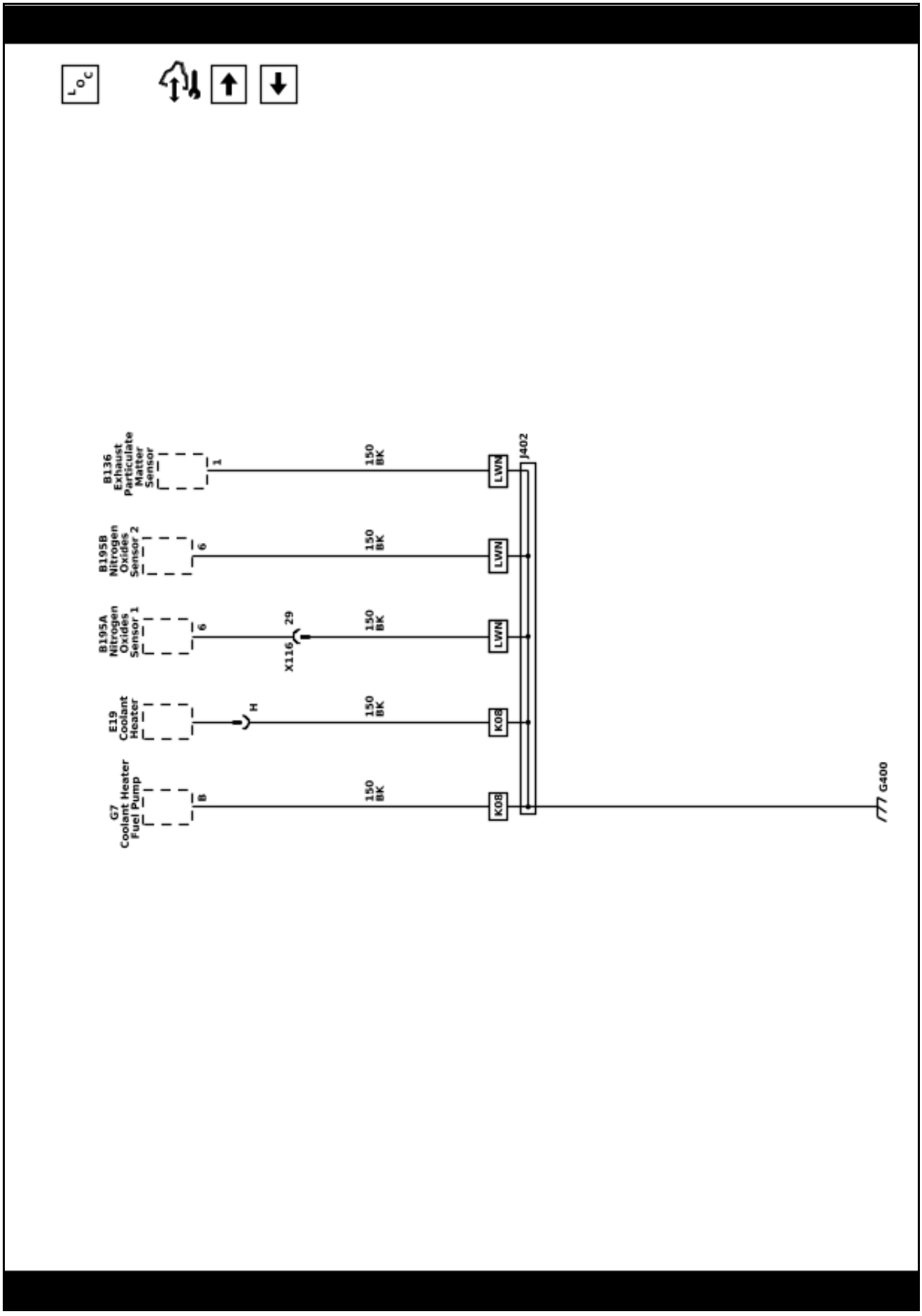
Ground Distribution Schematics (G348 (1 of 2))



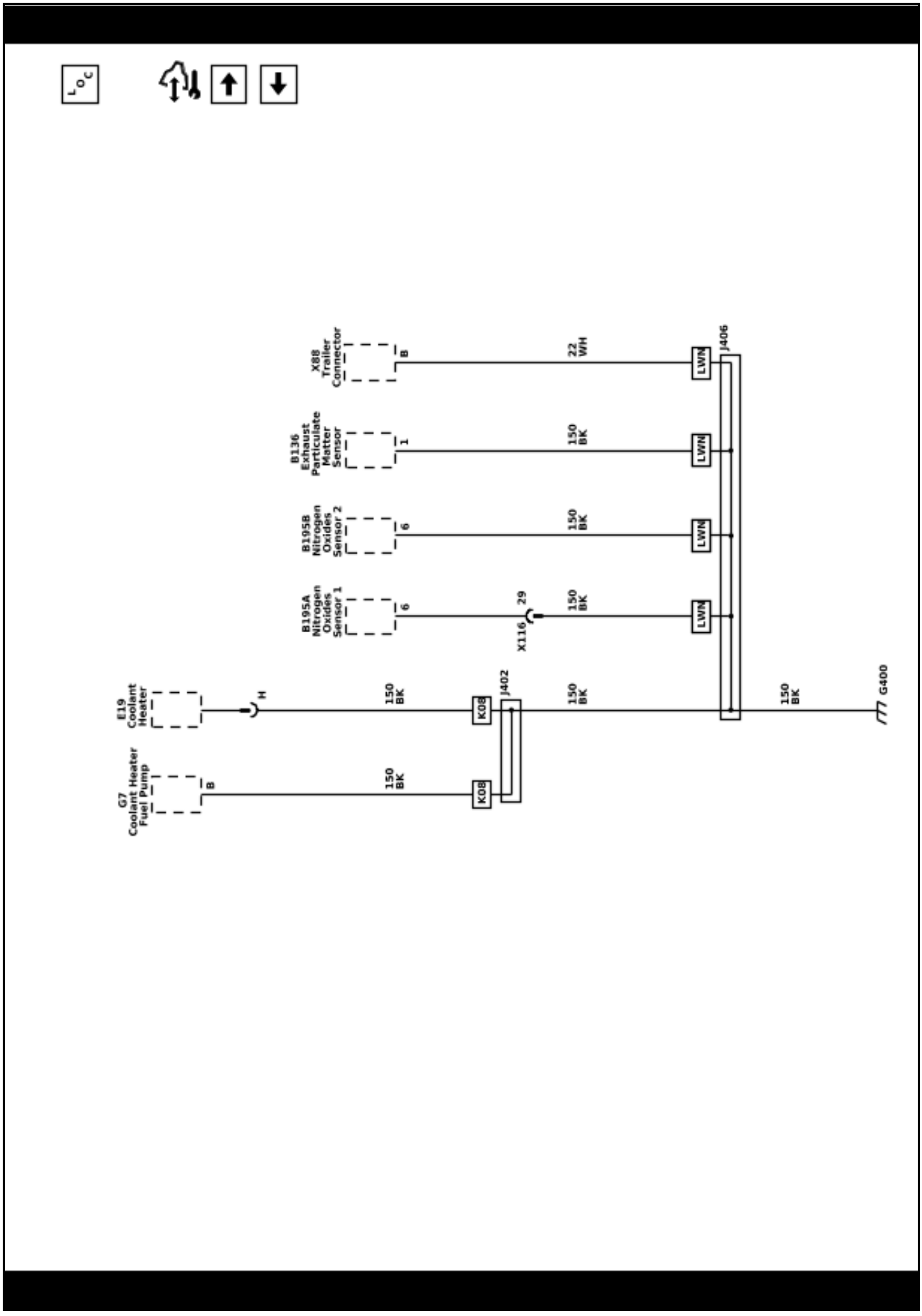
Ground Distribution Schematics (G348 (2 of 2))



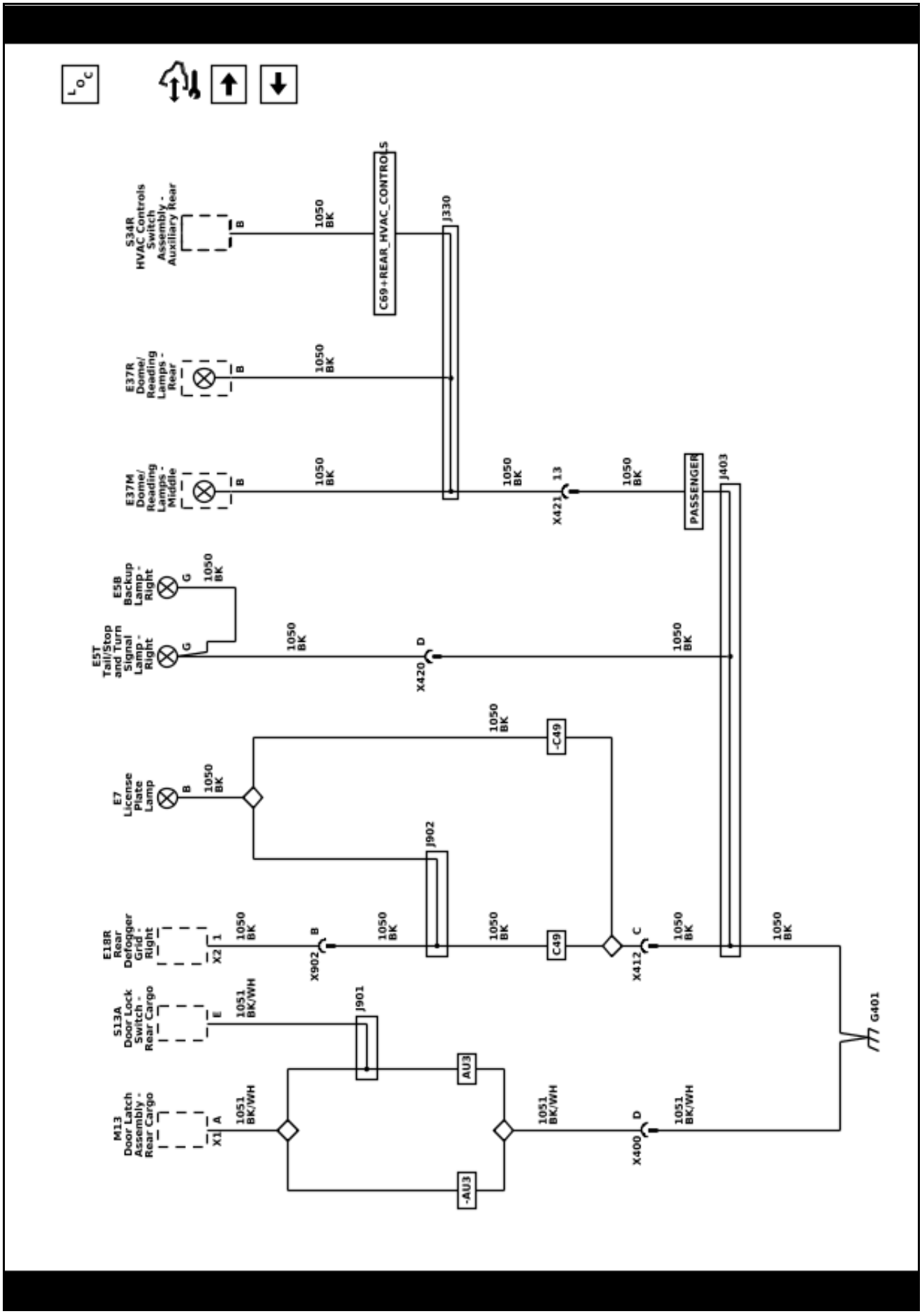
Ground Distribution Schematics (G400 (Without UY7))



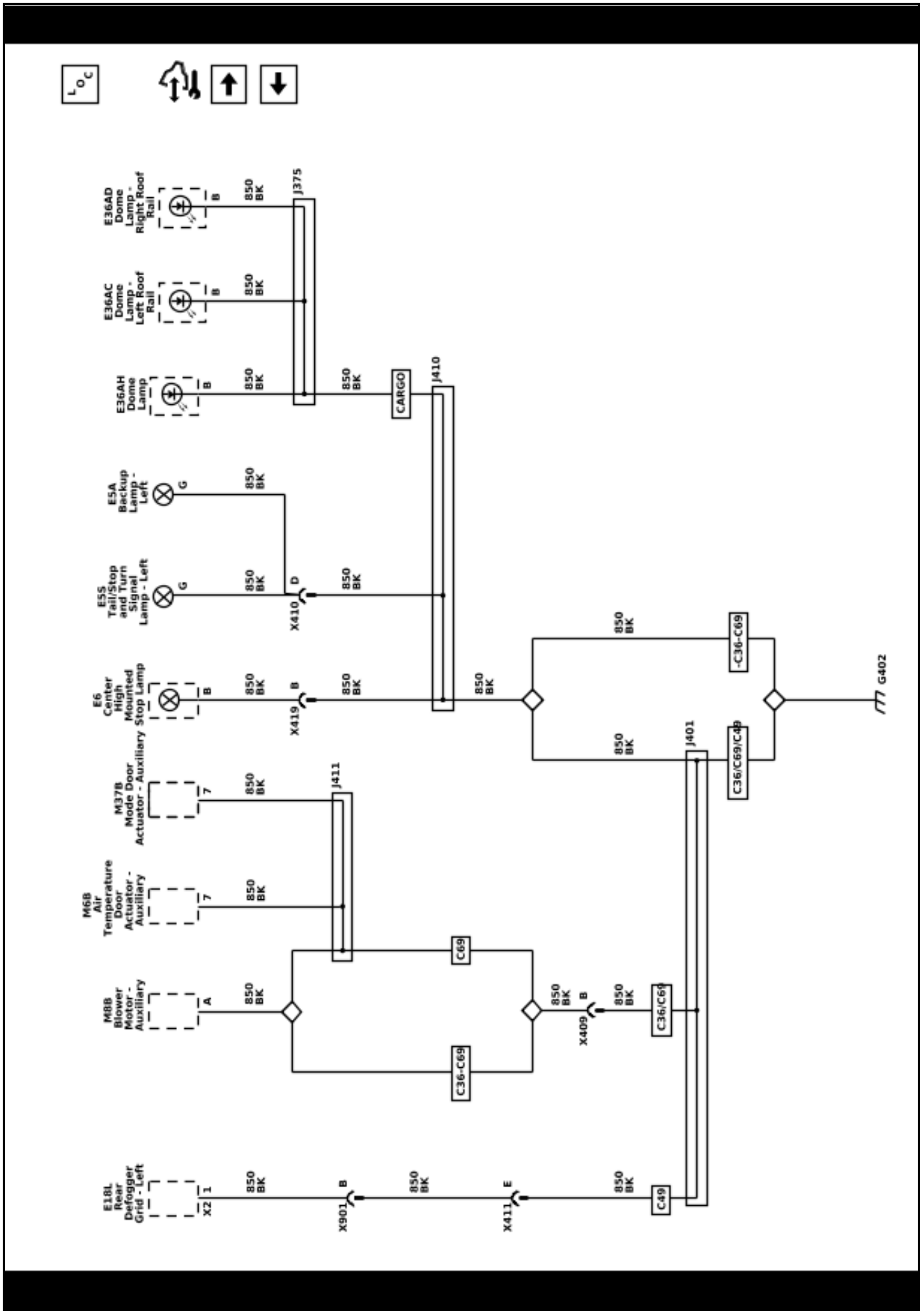
Ground Distribution Schematics (G400 (With UY7))



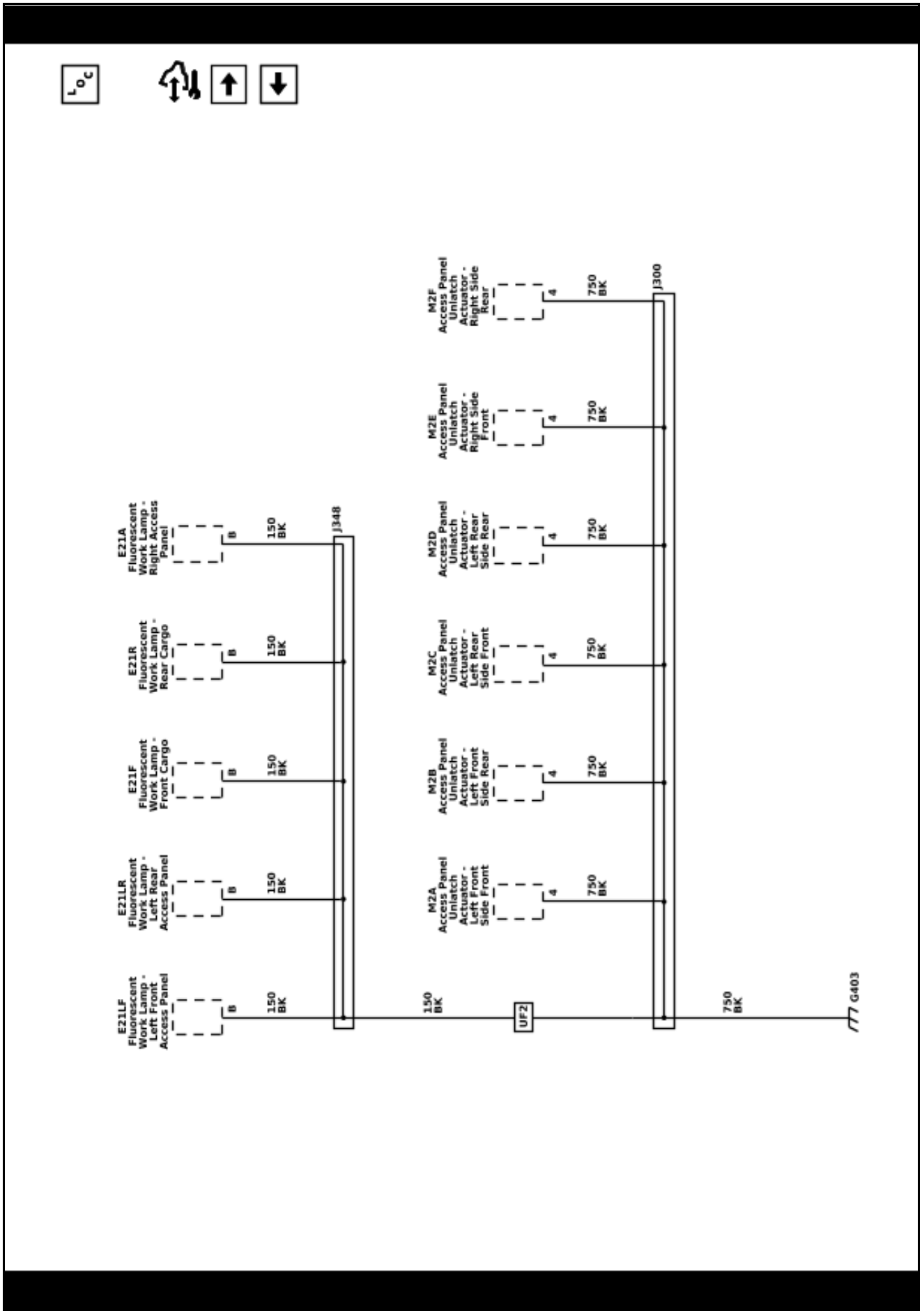
Ground Distribution Schematics (G401 (Passenger or Cargo))



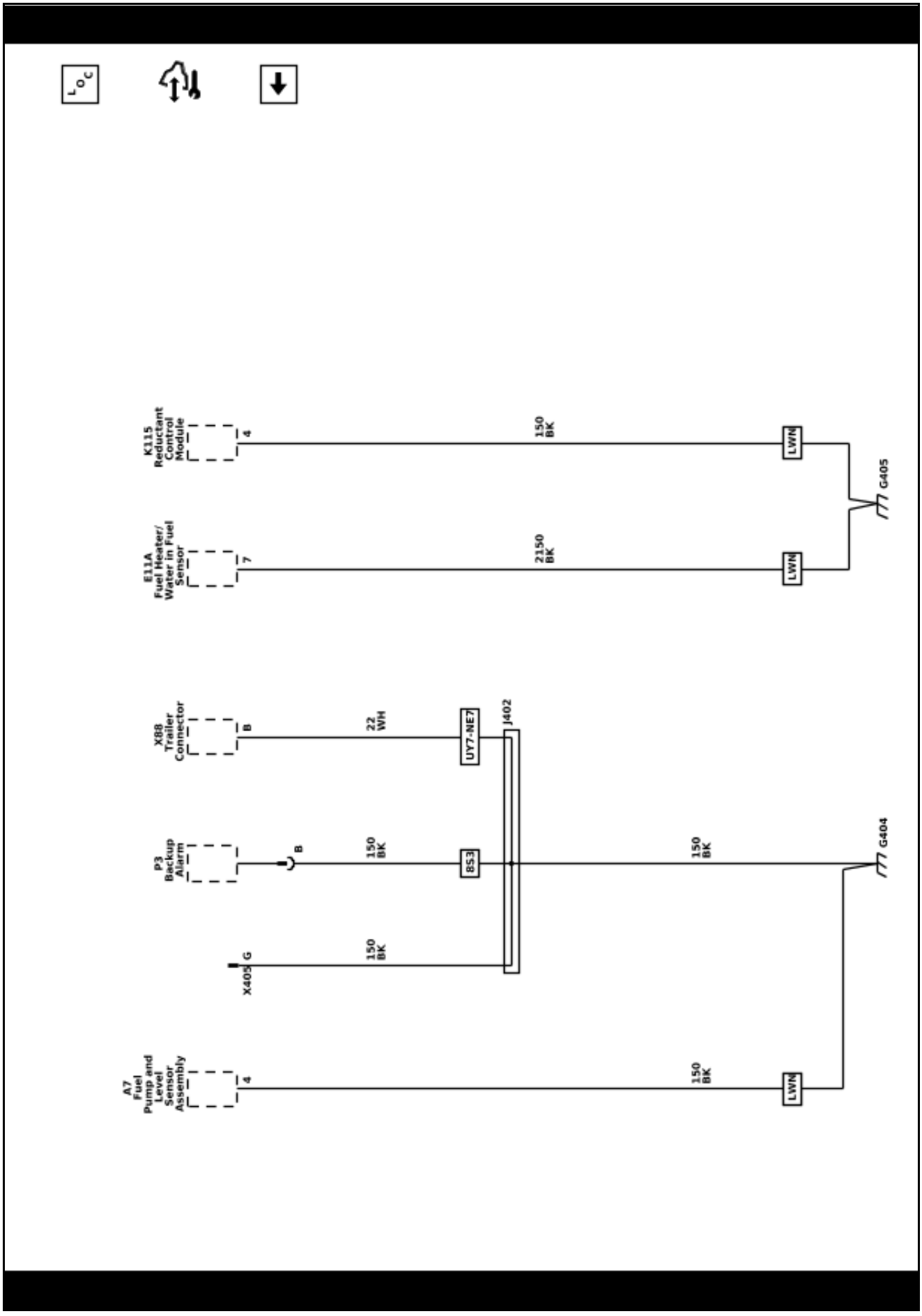
Ground Distribution Schematics (G402 (Passenger or Cargo))



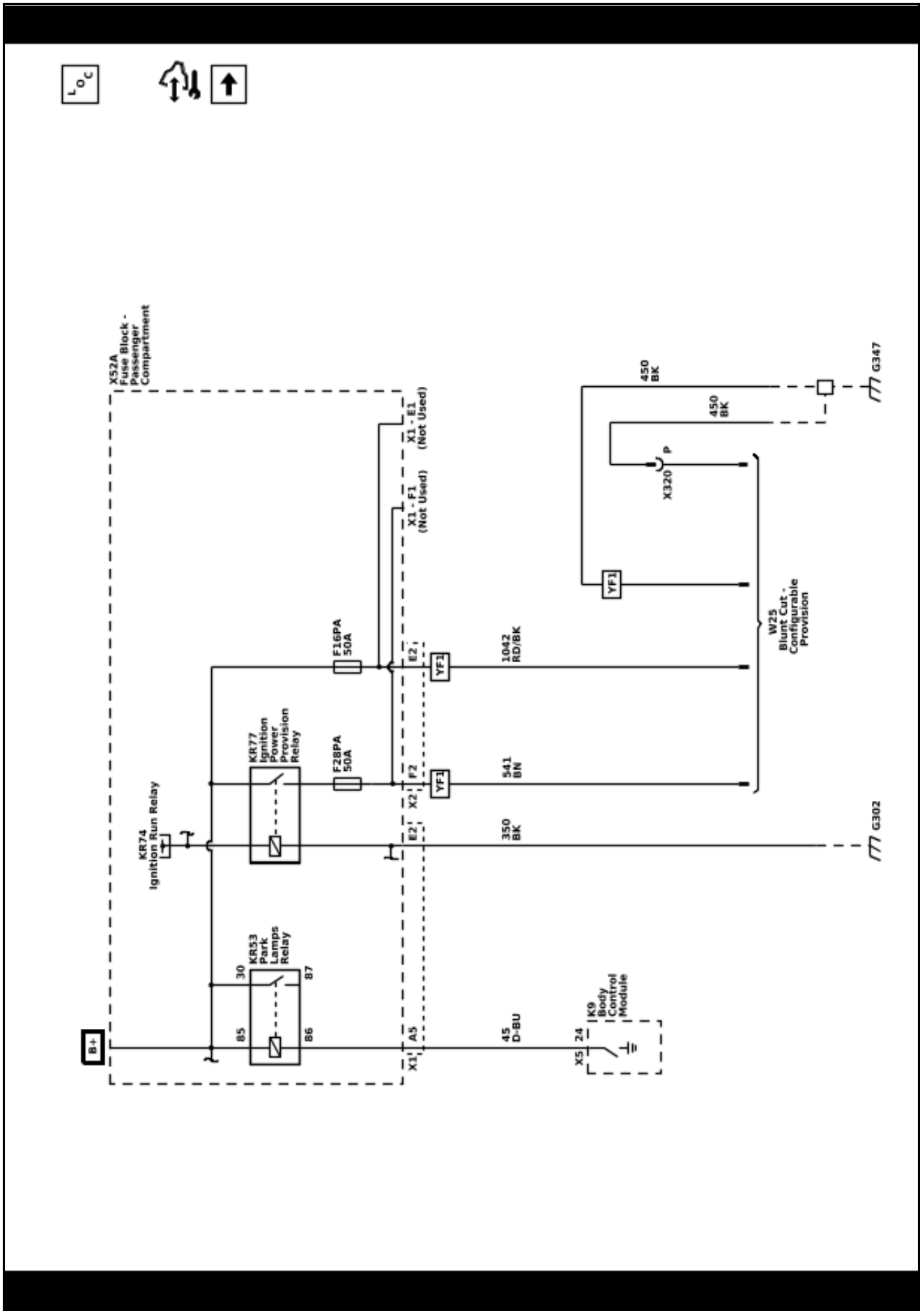
Ground Distribution Schematics (G403 (PRP))


5483218
E21LF Fluorescent Work Lamp - Left Front Access Panel
E21LR Fluorescent Work Lamp - Left Rear Access Panel
E21F Fluorescent Work Lamp - Front Cargo
E21R Fluorescent Work Lamp - Rear Cargo
E21A Fluorescent Work Lamp - Right Access Panel
M2A Access Panel Unlatch Actuator - Left Front Side Front
M2B Access Panel Unlatch Actuator - Left Front Side Rear
M2C Access Panel Unlatch Actuator - Left Rear Side Front
M2D Access Panel Unlatch Actuator - Left Rear Side Rear
M2E Access Panel Unlatch Actuator - Right Side Front
M2F Access Panel Unlatch Actuator - Right Side Rear
150 BK
750 BK
J348
J300
UF2
G403

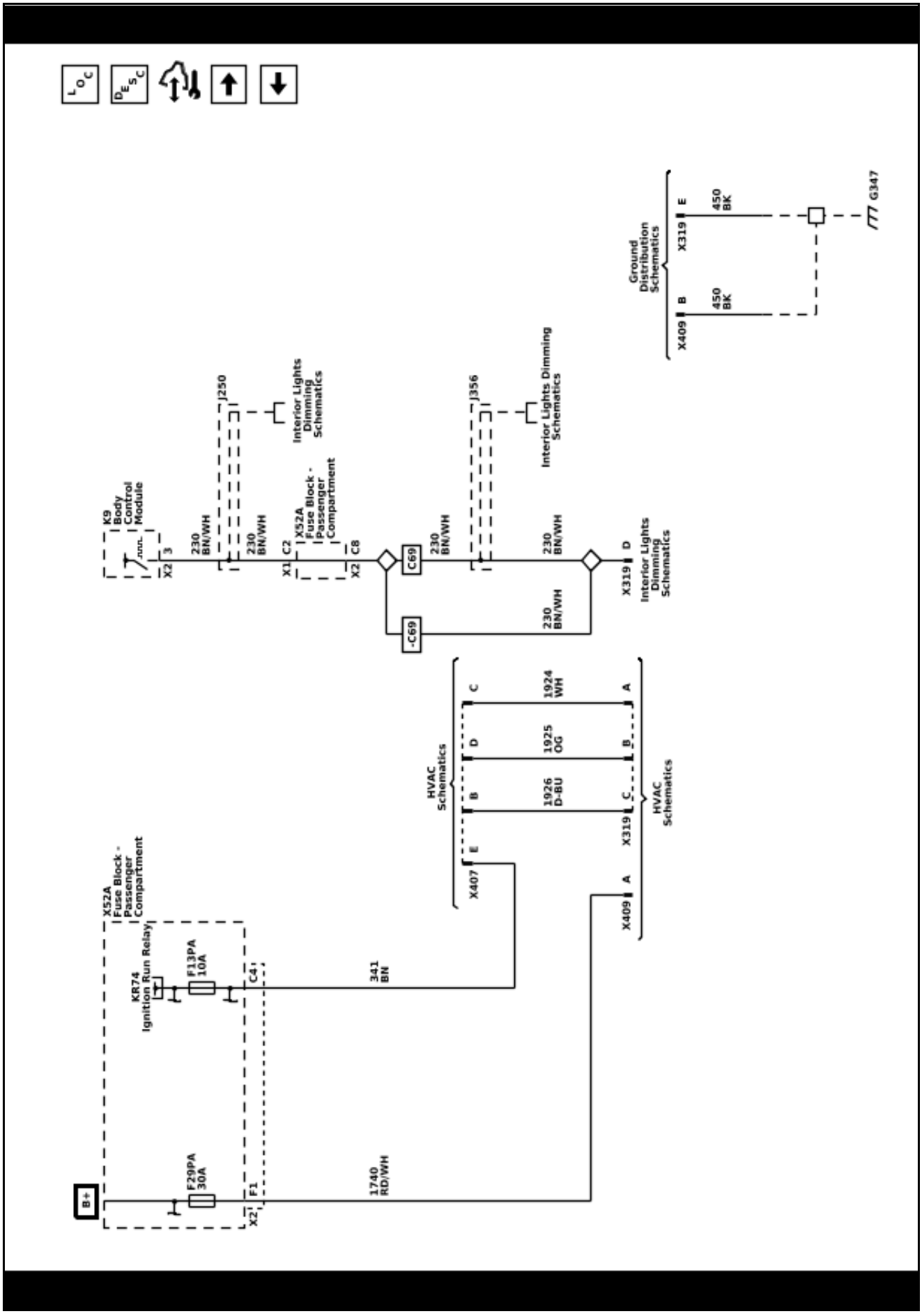
Ground Distribution Schematics (G404 and G405)



Upfitter Provision Schematics (Power, Ground, and Relay Controls)

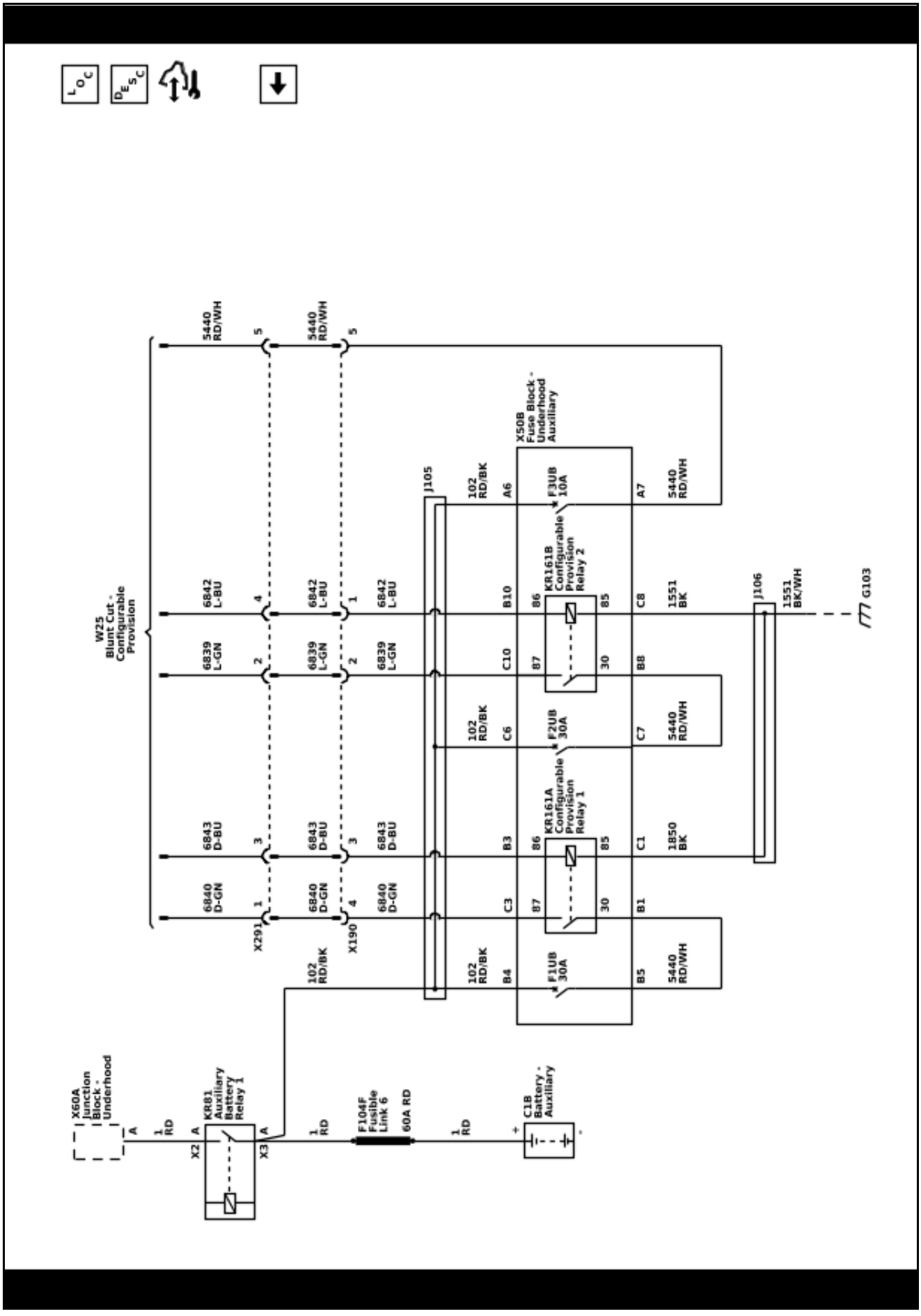


Upfitter Provision Schematics (Rear Heat Auxiliary (ENC))



5483221

Upfitter Provision Schematics (Upfitter Fuse Block (9L7))



5483222

Component Locator

Master Electrical Component List

Code	Name	Option	Location	Locator View	Connector End View
A3L	Sunshade - Left	DH6	On the upper left of the headliner	—	—
A3R	Sunshade - Right	DH6	On the upper right of the headliner	—	A3R Sunshade - Right
A5	Driver Information Center	—	Integral to P16 Instrument Cluster	—	—
A7	Fuel Pump and Level Sensor Assembly	—	In the vehicle underbody, in the fuel tank	• Fuel Tank Components (NE7) • Fuel Tank Components (Without NE7)	A7 Fuel Pump and Level Sensor Assembly (LWN)
A9A	Outside Rearview Mirror - Driver	DEB/DE5	Attached to the exterior of the left front door	Driver Door Components	A9A Outside Rearview Mirror - Driver
A9B	Outside Rearview Mirror - Passenger	DEB/DE5	Attached to the exterior of the right front door	Front Passenger Door Components	A9B Outside Rearview Mirror - Passenger
A10	Inside Rearview Mirror	—	In the passenger compartment, mounted at the top center of the windshield	—	• A10 Inside Rearview Mirror (-(UEU/UFL)) • A10 Inside Rearview Mirror (UEU/UFL)
A11	Radio	—	In the center of the instrument panel	Instrument Panel Components (1 of 2)	• A11 Radio X1 • A11 Radio X2
A12	Digital Radio Receiver Control Module	U2K/UBS	In the passenger compartment, mounted on a bracket under driver knee bolster panel	Underside of Instrument Panel Components	A12 Digital Radio Receiver Control Module X1
A23D	Door Latch Assembly - Driver	—	Towards the rear of the driver door	Driver Door Components	• A23D Door Latch Assembly - Driver X1 • A23D Door Latch Assembly - Driver X2
A23P	Door Latch Assembly - Passenger	—	Towards the rear of the passenger door	Front Passenger Door Components	• A23P Door Latch Assembly - Passenger X1 • A23P Door Latch Assembly - Passenger X2
A38	Reductant Pump and Sensor Assembly	LWN	Under the vehicle, toward the rear, inside the reductant fluid tank	Reductant Tank Components	—
A91	Mirror Display	UVC	Internal to A10 Inside Rearview Mirror	—	—
B1	A/C Refrigerant Pressure Sensor	C60	On the engine harness in the left rear side of the engine compartment	• Engine Compartment Components (2 of 2) • Front of Engine Compartment Components (1 of 2) • Left Front of the Engine Components (LWN)	• B1 A/C Refrigerant Pressure Sensor (LWN) • B1 A/C Refrigerant Pressure Sensor (-LWN)

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B1B	A/C Low Side Pressure Switch	C60	Right rear side of the engine compartment, on the side of the accumulator	• Front of Engine Compartment Components (1 of 2) • Front of Engine Compartment Components (2 of 2)	B1B A/C Low Side Pressure Switch
B5LF	Wheel Speed Sensor - Left Front	—	At the left front wheel	• Frame and Underbody Components (1 of 2) • Front Wheel Speed Sensor Components	B5LF Wheel Speed Sensor - Left Front
B5LR	Wheel Speed Sensor - Left Rear	—	At the left rear wheel, attached to the backing plate	Frame and Underbody Components (1 of 2)	• B5LR Wheel Speed Sensor - Left Rear (R04) • B5LR Wheel Speed Sensor - Left Rear (-R04)
B5RF	Wheel Speed Sensor - Right Front	—	At the right front wheel	• Frame and Underbody Components (1 of 2) • Front Wheel Speed Sensor Components	• B5RF Wheel Speed Sensor - Right Front (LWN) • B5RF Wheel Speed Sensor - Right Front (-LWN)
B5RR	Wheel Speed Sensor - Right Rear	—	At the right rear wheel, attached to the backing plate	Frame and Underbody Components (1 of 2)	• B5RR Wheel Speed Sensor - Right Rear (R04) • B5RR Wheel Speed Sensor - Right Rear (-R04)
B9	Ambient Air Temperature Sensor	—	Attached to the front center of the radiator support	Ambient Air Temperature Sensor (UFA)	• B9 Ambient Air Temperature Sensor (UFA) • B9 Ambient Air Temperature Sensor (-UFA)
B10	Ambient Light Sensor	—	On the top of the instrument panel	Instrument Panel Components (2 of 2)	B10 Ambient Light Sensor
B12A	Transmission Fluid Pressure Switch	—	Internal to T12 Automatic Transmission Assembly	—	—
B13	Transmission Fluid Temperature Sensor	—	Internal to T12 Automatic Transmission Assembly	—	—
B14A	Transmission Output Shaft Speed Sensor	—	Internal to T12 Automatic Transmission Assembly	Automatic Transmission Internal Electrical Components	—
B14C	Transmission Input Shaft Speed Sensor	—	Internal to T12 Automatic Transmission Assembly	—	—
B14D	Transmission Intermediate Shaft Speed Sensor	—	Under the vehicle, internal to the Transmision Assembly	—	—
B15	Transmission Internal Mode Switch	—	Internal to T12 Automatic Transmission Assembly	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B18	Battery Current Sensor	—	Attached to the negative terminal of the battery	—	B18 Battery Current Sensor
B19A	Brake Booster Fluid Pressure Alarm Switch	UJ1	In the power steering inlet hose, near the power steering pump	Brake Booster Fluid Alarm Switches (UJ1)	B19A Brake Booster Fluid Pressure Alarm Switch
B20	Brake Fluid Level Switch	—	Left rear of the engine compartment, attached to the left lower side of the brake fluid reservoir	• Engine Compartment Components (1 of 2) • Upper Left Side of the Engine Components (LV1)	B20 Brake Fluid Level Switch
B22	Brake Pedal Position Sensor	—	Attached to brake pedal assembly	Instrument Panel Components (2 of 2)	B22 Brake Pedal Position Sensor
B23	Camshaft Position Sensor	—	Front of the engine between the water pump and the crank pulley	• Left Front Side of the Engine Components (LV1) • Right Front of Engine Components (LWN)	B23 Camshaft Position Sensor
B24	Mobile Telephone Microphone	UE1	In the passenger compartment, in the overhead console	—	B24 Mobile Telephone Microphone
B26	Crankshaft Position Sensor	—	Attached to the lower right rear side of the engine, behind the starter	• Left Front of the Engine Components (LWN) • Right Side of the Engine Components (L8T) (2 of 2)	B26 Crankshaft Position Sensor
B28F	Door Ajar Switch - Right Sliding	Cargo/Passenger	Mounted towards the bottom of the right rear door	• Front of the Passenger Compartment Components • Right Side Hinged Door Components (E24) • Right Sliding Door Components (YA2)	B28F Door Ajar Switch - Right Sliding
B33	Engine Coolant Level Switch	LWN	Right front of the engine compartment, attached to the bottom of the coolant surge tank	• Front of Engine Compartment Components (1 of 2) • Front of Engine Compartment Components (2 of 2)	B33 Engine Coolant Level Switch (LWN)
B34	Engine Coolant Temperature Sensor	—	Attached to the engine coolant thermostat housing	• Left Front Side of the Engine Components (LV1) • Left Side of Engine Components (LWN) • Right Front Side of the Engine Components (LV1)	• B34 Engine Coolant Temperature Sensor (LV1) • B34 Engine Coolant Temperature Sensor (LWN)

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B35	Engine Oil Level Switch	—	Attached to the left side of the oil pan	• Right Front of Engine Components (LWN) • Right Front Side of the Engine Components (LV1) • Right Side of the Engine Components (L8T) (2 of 2)	• B35 Engine Oil Level Switch (LV1) • B35 Engine Oil Level Switch (-LV1)
B36	Engine Oil Temperature Sensor	L8T	In the engine compartmnet, near the left rear of the engine block	—	B36 Engine Oil Temperature Sensor
B37B	Engine Oil Pressure Sensor	—	In engine compartment, on the rear lower left side of the engine	• Left Front Side of the Engine Components (LV1) • Right Front of Engine Components (LWN)	B37B Engine Oil Pressure Sensor
B46	Fuel Level Sensor	LV1/L96/LC8	Under the vehicle, in the fuel tank	• Frame and Underbody Components (2 of 2) • Inside of Fuel Tank Components	—
B47	Fuel Pressure Sensor	—	Under the vehicle, near the fuel tank	—	B47 Fuel Pressure Sensor
B47B	Fuel Rail Pressure Sensor	—	In the engine compartment, on top of the engine, mounted to the rear of the right fuel rail	• Right Rear of Engine Components (LWN) • Top of the Engine Components (LV1)	B47B Fuel Rail Pressure Sensor
B48	Fuel Temperature Sensor	—	Under the vehicle, near the transmission, located with the fuel filter	—	—
B52C	Heated Oxygen Sensor - Bank 1 Sensor 1	—	Attached to the left front exhaust pipe, front of the catalytic converter	• Exhaust Components (LV1) • Left Side of the Engine Components (L8T)	B52C Heated Oxygen Sensor - Bank 1 Sensor 1
B52D	Heated Oxygen Sensor - Bank 1 Sensor 2	—	Attached to the left front exhaust pipe, back of the catalytic converter	• Exhaust Components (LV1) • Left Side of the Engine Components (L8T)	B52D Heated Oxygen Sensor - Bank 1 Sensor 2
B52E	Heated Oxygen Sensor - Bank 2 Sensor 1	—	Attached to the right front exhaust pipe, front of the catalytic converter	• Exhaust Components (LV1) • Right Side of the Engine Components (L8T) (2 of 2)	B52E Heated Oxygen Sensor - Bank 2 Sensor 1
B52F	Heated Oxygen Sensor - Bank 2 Sensor 2	—	Attached to the right front exhaust pipe, rear of the catalytic converter	• Exhaust Components (LV1) • Right Side of the Engine Components (L8T) (2 of 2)	B52F Heated Oxygen Sensor - Bank 2 Sensor 2

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B55	Engine Hood Switch	BTV	In the center front of the engine compartment, attached to the hood latch assembly	—	B55 Engine Hood Switch
B59	Front Impact Sensor	—	On the lower center of the radiator support	Front of Engine Compartment Components (1 of 2)	B59 Front Impact Sensor
B63LF	Side Impact Sensor - Left Front	ASF	In the left front side door	Driver Door Components	B63LF Side Impact Sensor - Left Front
B63LR	Side Impact Sensor - Left Rear	ASF	In the left center of the vehicle behind the body panel trim	Left Rear Cargo Area Components (Passenger or Cargo)	B63LR Side Impact Sensor - Left Rear
B63RF	Side Impact Sensor - Right Front	ASF	In the right front side door	Front Passenger Door Components	—
B63RR	Side Impact Sensor - Right Rear	ASF	In the lower right side of the vehicle near the rear side door	• Right Rear Frame Rail Components (Passenger with E24) • Right Rear Frame Rail Components (Passenger with YA2)	• B63RR Side Impact Sensor - Right Rear (E24) • B63RR Side Impact Sensor - Right Rear (YA2)
B65	Intake Manifold Pressure and Air Temperature Sensor	LWN	In the engine compartment, attached to the intake manifold, on top of the engine	Top of Engine Components (LWN)	—
B68A	Knock Sensor 1	—	Mounted to the lower right side of the engine in-between the engine oil pan and the right bank exhaust manifold	• Left Side of the Engine Components (L8T) • Left Side of the Engine Components (LV1)	B68A Knock Sensor 1
B68B	Knock Sensor 2	—	Mounted to the lower left of the engine, in-between the engine oil filter and the left bank exhaust manifold	• Right Front Side of the Engine Components (LV1) • Right Side of the Engine Components (L8T) (2 of 2)	B68B Knock Sensor 2
B74	Manifold Absolute Pressure Sensor	—	In the engine compartment, attached to the intake manifold, on top of the engine	• Left Side of the Engine Components (L8T) • Upper Left Side of the Engine Components (LV1)	B74 Manifold Absolute Pressure Sensor
B75C	Multifunction Intake Air Sensor	—	Right front of the engine compartment, mounted in the air cleaner duct	• Engine Compartment Components (2 of 2) • Right Rear of Engine Components (LWN) • Upper Left Side of the Engine Components (LV1)	• B75C Multifunction Intake Air Sensor (LWN) • B75C Multifunction Intake Air Sensor (-LWN)
B80	Park Brake Switch	—	Left lower side of the instrument panel on the brake pedal assembly	Instrument Panel Components (2 of 2)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B87	Rearview Camera	UVC	On the right rear cargo door, in license plate trim	Rear Exterior Lights (Passenger or Cargo)	• B87 Rearview Camera (Cut-away) • B87 Rearview Camera (-Cut-away)
B88D	Seat Belt Switch - Driver	—	Right side of the driver seat, inside Seat Belt Buckle — Driver	—	—
B88P	Seat Belt Switch - Passenger	AK5	Left side of the front passenger seat, inside Seat Belt Buckle — Passenger	—	—
B99	Steering Wheel Angle Sensor	—	Attached the lower steering column jacket assembly	Steering Column Components (2 of 2)	—
B107	Accelerator Pedal Position Sensor	—	Left lower side of the instrument panel, above the accelerator pedal	Instrument Panel Components (2 of 2)	B107 Accelerator Pedal Position Sensor
B116	Water in Fuel Sensor	—	In the engine compartment, at the right rear of the engine, mounted in the bottom of the fuel filter	—	—
B130A	Exhaust Gas Recirculation Temperature Sensor 1	LWN	In the engine compartment, on the top left rear side of the engine	Right Rear of Engine Components (LWN)	B130A Exhaust Gas Recirculation Temperature Sensor 1
B130B	Exhaust Gas Recirculation Temperature Sensor 2	LWN	In the engine compartment, on the top right front side of the engine	Right Rear of Engine Components (LWN)	B130B Exhaust Gas Recirculation Temperature Sensor 2
B131A	Exhaust Temperature Sensor 1	LWN	In the engine compartment, attached to the exhaust pipe, on the top left rear side of the engine	Right Rear of Engine Components (LWN)	B131A Exhaust Temperature Sensor 1
B131B	Exhaust Temperature Sensor 2	LWN	Under the vehicle, attached to the exhaust pipe, near the rear of the catalytic converter	Right Rear of Engine Components (LWN)	B131B Exhaust Temperature Sensor 2
B131C	Exhaust Temperature Sensor 3	LWN	Under the vehicle, attached to the exhaust pipe, at the middle of the diesel particulate filter	—	B131C Exhaust Temperature Sensor 3
B131D	Exhaust Temperature Sensor 4	LWN	Under the vehicle, attached to the exhaust pipe, near the rear of the diesel particulate filter	—	B131D Exhaust Temperature Sensor 4
B131E	Exhaust Temperature Sensor 5	LWN	Under the vehicle, attached to the exhaust pipe, after the diesel particulate filter	—	B131E Exhaust Temperature Sensor 5
B133	Brake Booster Fluid Flow Alarm Switch	UJ1	In the power steering outlet hose, near the power steering pump	Brake Booster Fluid Alarm Switches (UJ1)	• B133 Brake Booster Fluid Flow Alarm Switch X1 • B133 Brake Booster Fluid Flow Alarm Switch X2
B134A	Coolant Heater Air Temperature Sensor	K08	Internal to E19 Coolant Heater	Coolant Heater Components (K08)	—
B134B	Coolant Heater Combustion Sensor	K08	Internal to E19 Coolant Heater	Coolant Heater Components (K08)	—
B134C	Coolant Heater Overheat Sensor	K08	Internal to E19 Coolant Heater	Coolant Heater Components (K08)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B135	Coolant Heater Temperature Sensor	K08	Internal to E19 Coolant Heater	—	—
B136	Exhaust Particulate Matter Sensor	LWN	Mounted to the exhaust, towards the rear of the engine harness	—	*B136 Exhaust Particulate Matter Sensor*
B150	Fuel Tank Pressure Sensor	L8T/LV1	Attached to the top of the fuel sender assembly	• *Fuel Tank Components (NE7)* • *Fuel Tank Components (Without NE7)*	*B150 Fuel Tank Pressure Sensor*
B153D	Seat Belt Buckle - Driver	—	Right side of the driver seat	*Driver Seat Components*	—
B153P	Seat Belt Buckle - Passenger	AK5	Left side of the front passenger seat	*Passenger Seat Components*	—
B154	Diesel Particulate Filter Exhaust Differential Pressure Sensor	LWN	Under the vehicle, near the rear of the catalytic converter	—	*B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor*
B174W	Frontview Camera - Windshield	UFL	In the passenger compartment, mounted at the top center of the windshield	—	*B174W Frontview Camera - Windshield*
B176	Multi-axis Acceleration Sensor Module	—	In the passenger compartment, on the front center on the floor board between the front seats	*Front of the Passenger Compartment Components*	*B176 Multi-axis Acceleration Sensor Module*
B193A	Charge Air Cooler Inlet Temperature Sensor	LWN	In the engine compartment, attached to the intake manifold, front of the turbocharger	*Right Rear of Engine Components (LWN)*	*B193A Charge Air Cooler Inlet Temperature Sensor*
B193B	Charge Air Cooler Outlet Temperature Sensor	LWN	On the top right front of the engine compartment, near the coolant surge tank	• *Front of Engine Compartment Components (2 of 2)* • *Left Side of Engine Components (LWN)*	*B193B Charge Air Cooler Outlet Temperature Sensor*
B194	Reductant Pressure Sensor	LWN	Under the vehicle, above the reductant tank	—	—
B195A	Nitrogen Oxides Sensor 1	LWN	Under the vehicle	*Right Rear of Engine Components (LWN)*	*B195A Nitrogen Oxides Sensor 1*
B195B	Nitrogen Oxides Sensor 2	LWN	Under the vehicle	—	*B195B Nitrogen Oxides Sensor 2*
B213	Reductant Level Sensor	LWN	Under the vehicle, toward the rear, inside the reductant fluid tank	—	—
B214	Reductant Temperature Sensor	LWN	Under the vehicle, toward the rear, inside the reductant fluid tank	—	—
B218L	Side Object Sensor Module - Left	UFT	At the rear of the vehicle, in the rear bumper, at the left corner	—	*B218L Side Object Sensor Module - Left (UFT)*
B218R	Side Object Sensor Module - Right	UFT	At the rear of the vehicle, in the rear bumper, at the right corner	—	*B218R Side Object Sensor Module - Right (UFT)*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B295	Reductant Quality Sensor	LWN	Under the vehicle, mounted to the outboard side of the frame, below the passenger side of the cab attached to the reductant fluid inlet line near the reductant pump and sensor assembly	Reductant Tank Components	—
B303	Transmission Range Sensor	—	Under the vehicle, center, within T12 Automatic Transmission Assembly	—	—
B306E	Parking Assist Sensor - Rear Left Outer	UD7	At the rear of the vehicle, housed in the rear fascia	Rear Exterior Lights (Passenger or Cargo)	B306E Parking Assist Sensor - Rear Left Outer (UD7)
B306F	Parking Assist Sensor - Rear Left Middle	UD7	At the rear of the vehicle, housed in the rear fascia	Rear Exterior Lights (Passenger or Cargo)	B306F Parking Assist Sensor - Rear Left Middle (UD7)
B306G	Parking Assist Sensor - Rear Right Middle	UD7	At the rear of the vehicle, housed in the rear fascia	Rear Exterior Lights (Passenger or Cargo)	B306G Parking Assist Sensor - Rear Right Middle (UD7)
B306H	Parking Assist Sensor - Rear Right Outer	UD7	At the rear of the vehicle, housed in the rear fascia	Rear Exterior Lights (Passenger or Cargo)	B306H Parking Assist Sensor - Rear Right Outer (UD7)
C1	Battery	—	At the right front side of the engine compartment	• Engine Compartment Components (1 of 2) • Front of Engine Compartment Components (2 of 2)	• C1 Battery ((-)) • C1 Battery ((+))
C1B	Battery - Auxiliary	LWN/TP3	Left frame rail, center of the vehicle	Frame and Underbody Components (2 of 2)	• C1B Battery - Auxiliary (LWN) • C1B Battery - Auxiliary (-LWN)
E2LF	Side Marker Lamp - Left Front	—	In the left front corner of the vehicle	Front Exterior Lighting	E2LF Side Marker Lamp - Left Front
E2RF	Side Marker Lamp - Right Front	—	In the right front corner of the vehicle	Front Exterior Lighting	E2RF Side Marker Lamp - Right Front
E4E	Headlamp - Left High Beam	V22	At the left front of the vehicle	Front Exterior Lighting	E4E Headlamp - Left High Beam
E4F	Headlamp - Right High Beam	V22	At the right front of the vehicle	Front Exterior Lighting	E4F Headlamp - Right High Beam
E4G	Headlamp - Left Low Beam	V22	At the left front of the vehicle	Front Exterior Lighting	E4G Headlamp - Left Low Beam
E4H	Headlamp - Right Low Beam	V22	At the right front of the vehicle	Front Exterior Lighting	E4H Headlamp - Right Low Beam
E4N	Park/Turn Signal Lamp - Left	—	In the left front corner of the vehicle	Front Exterior Lighting	E4N Park/Turn Signal Lamp - Left
E4P	Park/Turn Signal Lamp - Right	—	In the right front corner of the vehicle	Front Exterior Lighting	E4P Park/Turn Signal Lamp - Right
E5A	Backup Lamp - Left	—	Attached to the left tail lamp assembly	Rear Exterior Lights (Passenger or Cargo)	—
E5B	Backup Lamp - Right	—	Attached to the right tail lamp assembly	Rear Exterior Lights (Passenger or Cargo)	—
E5S	Tail/Stop and Turn Signal Lamp - Left	Passenger/Cargo	Attached to the left tail lamp assembly, upper bulb	Rear Exterior Lights (Passenger or Cargo)	—
E5T	Tail/Stop and Turn Signal Lamp - Right	Passenger/Cargo	Attached to the right tail lamp assembly, upper bulb	Rear Exterior Lights (Passenger or Cargo)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
E6	Center High Mounted Stop Lamp	Passenger/Cargo	At the top rear center of the vehicle	Rear Exterior Lights (Passenger or Cargo)	—
E7	License Plate Lamp	Passenger/Cargo	Attached to the outer right cargo door, above the license plate mount	Rear Exterior Lights (Passenger or Cargo)	E7 License Plate Lamp
E11	Fuel Heater	LWN	In the engine compartment, at the right rear of the engine, mounted in the bottom of the fuel filter	—	—
E11A	Fuel Heater/Water in Fuel Sensor	LWN	Under the vehicle, near the transmission, located with the fuel filter	—	E11A Fuel Heater/ Water in Fuel Sensor
E12A	Glow Plug 1	LWN	In the engine compartment, on the top left of the engine	Top of Engine Components (LWN)	E12A Glow Plug 1
E12B	Glow Plug 2	LWN	In the engine compartment, on the top left of the engine	Top of Engine Components (LWN)	E12B Glow Plug 2
E12C	Glow Plug 3	LWN	In the engine compartment, on the top left of the engine	Top of Engine Components (LWN)	E12C Glow Plug 3
E12D	Glow Plug 4	LWN	In the engine compartment, on the top left of the engine	Top of Engine Components (LWN)	E12D Glow Plug 4
E18L	Rear Defogger Grid - Left	C49	Attached to the left cargo door window	Rear Door Components (Passenger or Cargo)	• E18L Rear Defogger Grid - Left X1 • E18L Rear Defogger Grid - Left X2
E18R	Rear Defogger Grid - Right	C49	Attached to the right cargo door window	Rear Door Components (Passenger or Cargo)	• E18R Rear Defogger Grid - Right X1 • E18R Rear Defogger Grid - Right X2
E19	Coolant Heater	K08	Attached to the left front inner frame rail	• Coolant Heater Components (K08) • Frame and Underbody Components (2 of 2)	E19 Coolant Heater
E20	Coolant Heater Glow Plug	K08	Internal to E19 Coolant Heater	Coolant Heater Components (K08)	—
E21A	Fluorescent Work Lamp - Right Access Panel	PRP	Mounted towards the right of the top access panel	—	—
E21F	Fluorescent Work Lamp - Front Cargo	PRP	Mounted towards the top front of the cargo area	—	—
E21LF	Fluorescent Work Lamp - Left Front Access Panel	PRP	At the front and towards the top of the left access panel	—	—
E21LR	Fluorescent Work Lamp - Left Rear Access Panel	PRP	Mounted towards the top of the right access panel	—	—
E21R	Fluorescent Work Lamp - Rear Cargo	PRP	Mounted towards the top rear of the cargo area	—	—
E22	Underhood Lamp	—	In the engine compartment, attached to the left inner hood panel	Underside of Hood Components	E22 Underhood Lamp

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
E31L	Sunshade Mirror Lamp - Left	DH6	On the upper left of the headliner, inside the Sunshade — Left	Headliner Components	—
E31R	Sunshade Mirror Lamp - Right	DH6	On the upper right of the headliner, in the Sunshade — Right	Headliner Components	—
E36AC	Dome Lamp - Left Roof Rail	Cargo Without YF7	In the rear of the roof panel	—	E36AC Dome Lamp - Left Roof Rail
E36AD	Dome Lamp - Right Roof Rail	Cargo Without YF7	In the rear of the roof panel	—	E36AD Dome Lamp - Right Roof Rail
E36AH	Dome Lamp	Cargo Without YF7	In the rear of the roof panel	—	E36AH Dome Lamp
E37F	Dome/Reading Lamps - Front	Without YF7	In the front of the roof panel	Headliner Components	E37F Dome/Reading Lamps - Front
E37M	Dome/Reading Lamps - Middle	Passenger	In the center of the roof panel	Headliner Components	E37M Dome/Reading Lamps - Middle
E37R	Dome/Reading Lamps - Rear	Passenger	In the rear of the roof panel	Headliner Components	E37R Dome/Reading Lamps - Rear
E45	Positive Crankcase Ventilation Heater	LWN	In the engine compartment, attached to the top front of the engine	Right Front of Engine Components (LWN)	E45 Positive Crankcase Ventilation Heater
E52	Reductant Line Heater	LWN	Under the vehicle, above the reductant tank	Reductant Tank Components	—
E53	Reductant Tank Heater	LWN	Under the vehicle, inside the reductant tank	—	—
F101	Passenger Instrument Panel Air Bag	—	Right side of the instrument panel	• Instrument Panel Components (1 of 2) • Instrument Panel Components (2 of 2)	F101 Passenger Instrument Panel Air Bag
F105LF	Roof Rail Air Bag - Left Front	ASF	Behind the left side of the headliner trim	Front of the Passenger Compartment Components	F105LF Roof Rail Air Bag - Left Front
F105RF	Roof Rail Air Bag - Right Front	ASF	Behind the right side of the headliner trim	Front of the Passenger Compartment Components	F105RF Roof Rail Air Bag - Right Front
F105RR	Roof Rail Air Bag - Right Rear	ASF	Behind the right rear side of the headliner trim	—	F105RR Roof Rail Air Bag - Right Rear
F106D	Seat Side Air Bag - Driver	AK5	Within the driver seat back, towards the outside	—	—
F106P	Seat Side Air Bag - Passenger	AK5	Within the passenger seat back, towards the outside	—	—
F107	Steering Wheel Air Bag	—	Attached to the center of the steering wheel	• Instrument Panel Components (1 of 2) • Steering Column Components (1 of 2)	—
F109D	Seat Belt Buckle Pretensioner - Driver	—	Part of the seat belt buckle	Driver Seat Components	—
F109P	Seat Belt Buckle Pretensioner - Passenger	AK5	Part of the seat belt buckle	Passenger Seat Components	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
G7	Coolant Heater Fuel Pump	K08	Attached to the left inner frame rail, near the fuel pump assembly	• Coolant Heater Components (K08) • Frame and Underbody Components (2 of 2)	G7 Coolant Heater Fuel Pump
G12	Fuel Pump	L8T/LV1	Under the vehicle, internally attached to the middle of the fuel pump assembly	Frame and Underbody Components (2 of 2)	—
G13	Generator	—	Attached to the right front of the engine	• Left Front of the Engine Components (LWN) • Right Side of the Engine Components (L8T) (2 of 2)	• G13 Generator X1 • G13 Generator X2 (L8T+KG4) • G13 Generator X2 (L8T+KW5) • G13 Generator X2 (LV1+K68) • G13 Generator X2 (LV1+KW5) • G13 Generator X2 (LWN)
G18	High Pressure Fuel Pump	LV1	In the engine compartment, at the top rear of the engine, between the cylinder heads	Top of the Engine Components (LV1)	—
G24	Windshield Washer Pump	—	Attached to the windshield washer fluid reservoir in the right front of the engine compartment	Front of Engine Compartment Components (1 of 2)	G24 Windshield Washer Pump
G33	Reductant Pump	LWN	Under the vehicle, above the reductant tank	—	—
K9	Body Control Module	—	Lower right side of the instrument panel behind the knee bolster	Instrument Panel Components (2 of 2)	• K9 Body Control Module X1 • K9 Body Control Module X2 • K9 Body Control Module X3 • K9 Body Control Module X4 • K9 Body Control Module X5 • K9 Body Control Module X6 • K9 Body Control Module X7
K10	Coolant Heater Control Module	K08	Internal to the coolant heater assembly	Coolant Heater Components (K08)	—
K17	Electronic Brake Control Module	—	Attached to the left frame rail, near the center of the vehicle	Frame and Underbody Components (1 of 2)	K17 Electronic Brake Control Module
K18	Compass Module	U80	In the front of the headliner	Headliner Components	K18 Compass Module

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
K20	Engine Control Module	—	At the left front side of the engine compartment, near the underhood fuse block on the inner left front fender	• Engine Compartment Components (1 of 2) • Engine Compartment Components (2 of 2)	• K20 Engine Control Module X1 (L8T) • K20 Engine Control Module X1 (LV1) • K20 Engine Control Module X1 (LWN) • K20 Engine Control Module X2 (L8T) • K20 Engine Control Module X2 (LV1) • K20 Engine Control Module X2 (LWN) • K20 Engine Control Module X3 (L8T) • K20 Engine Control Module X3 (LV1) • K20 Engine Control Module X3 (LWN)
K33A	HVAC Control Module - Auxiliary	—	In the front of the headliner	—	K33A HVAC Control Module - Auxiliary
K36	Inflatable Restraint Sensing and Diagnostic Module	—	Below the driver seat under the carpet on the floor board	Front of the Passenger Compartment Components	• K36 Inflatable Restraint Sensing and Diagnostic Module X1 • K36 Inflatable Restraint Sensing and Diagnostic Module X2
K64	Content Theft Deterrent Control Module	—	In the steering column around the ignition key cylinder housing	Steering Column Components (1 of 2)	—
K71	Transmission Control Module	M5U	Internal to T12 Automatic Transmission Assembly	Engine Compartment Components (1 of 2)	K71 Transmission Control Module
K73	Telematics Communication Interface Control Module	UE1	In the passenger compartment, mounted on a bracket under driver knee bolster panel	Underside of Instrument Panel Components	• K73 Telematics Communication Interface Control Module X1 • K73 Telematics Communication Interface Control Module X2
K77	Remote Control Door Lock Receiver	ATG/UJM	Attached to the upper left side of the instrument panel carrier, above the instrument panel cluster (IPC)	Instrument Panel Components (2 of 2)	K77 Remote Control Door Lock Receiver
K111	Fuel Pump Driver Control Module	—	Under the vehicle, attached to the left frame rail, approximately midpoint of vehicle	—	K111 Fuel Pump Driver Control Module
K115	Reductant Control Module	LWN	Under the vehicle, mounted on the top of the reductant fluid tank	Reductant Tank Components	K115 Reductant Control Module

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
K182	Parking Assist Control Module	UD7	In the passenger compartment, mounted within the instrument panel on the right side if the steering column	—	• K182 Parking Assist Control Module X1 • K182 Parking Assist Control Module X2
M2A	Access Panel Unlatch Actuator - Left Front Side Front	PRP	Inside the left access panel area	—	—
M2B	Access Panel Unlatch Actuator - Left Front Side Rear	PRP	Inside the left access panel area	—	—
M2C	Access Panel Unlatch Actuator - Left Rear Side Front	PRP	Inside the left access panel area	—	—
M2D	Access Panel Unlatch Actuator - Left Rear Side Rear	PRP	Inside the left access panel area	—	—
M2E	Access Panel Unlatch Actuator - Right Side Front	PRP	Inside the right access panel area	—	—
M2F	Access Panel Unlatch Actuator - Right Side Rear	PRP	Inside the right access panel area	—	—
M6	Air Temperature Door Actuator	—	Lower right side of the instrument panel, attached to the HVAC module	HVAC Case Components	M6 Air Temperature Door Actuator
M6B	Air Temperature Door Actuator - Auxiliary	C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	Left Rear Cargo Area Components (Passenger or Cargo)	M6B Air Temperature Door Actuator - Auxiliary
M7	Transmission Shift Lock Control Solenoid Actuator	—	Attached to the right side of the steering column	Steering Column Components (1 of 2)	—
M8	Blower Motor	—	Right rear of the engine compartment, attached to the evaporator case	Engine Compartment Components (1 of 2)	—
M8B	Blower Motor - Auxiliary	C36/C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	Left Rear Cargo Area Components (Passenger or Cargo)	M8B Blower Motor - Auxiliary
M11	Coolant Heater Blower Motor	K08	Internal to the coolant heater assembly	Coolant Heater Components (K08)	—
M13	Door Latch Assembly - Rear Cargo	Passenger/Cargo	Attached to the right cargo door latch, in the right cargo door	Rear Door Components (Passenger or Cargo)	• M13 Door Latch Assembly - Rear Cargo X1 • M13 Door Latch Assembly - Rear Cargo X2
M14RR	Door Lock Actuator - Right Rear	AU3	Attached to the right rear door latch, in the right rear door	• Right Side Hinged Door Components (E24) • Right Sliding Door Components (YA2)	• M14RR Door Lock Actuator - Right Rear (E24) • M14RR Door Lock Actuator - Right Rear (YA2)

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
M37B	Mode Door Actuator - Auxiliary	C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	Left Rear Cargo Area Components (Passenger or Cargo)	M37B Mode Door Actuator - Auxiliary
M49D	Seat Motor Assembly - Driver	AG1	Below the left front seat, attached to the seat frame	Driver Seat Components	—
M49P	Seat Motor Assembly - Passenger	AG2	Below the right front seat, attached to the seat frame	Passenger Seat Components	—
M64	Starter Motor	—	Attached to the lower right rear of the engine	• Left Front of the Engine Components (LWN) • Right Front Side of the Engine Components (LV1) • Right Side of the Engine Components (L8T) (1 of 2)	• M64 Starter Motor X1 (L8T+TP3) • M64 Starter Motor X1 (L8T-TP3) • M64 Starter Motor X1 (LV1) • M64 Starter Motor X1 (LWN) • M64 Starter Motor X2
M74D	Window Motor - Driver	A31	Attached to the interior of the left front door	Driver Door Components	M74D Window Motor - Driver
M74P	Window Motor - Passenger	A31	Attached to the interior of the right front door	Front Passenger Door Components	M74P Window Motor - Passenger
M75	Windshield Wiper Motor	—	In the left side of the cowl, near the engine compartment	Front of Engine Compartment Components (1 of 2)	M75 Windshield Wiper Motor
M103	Turbocharger Vane Position Actuator	LWN	In the engine compartment, attached to the turbocharger	Right Rear of Engine Components (LWN)	M103 Turbocharger Vane Position Actuator
P3	Backup Alarm	8S3	In the rear of the vehicle on the frame	—	P3 Backup Alarm
P13	Horn Assembly	—	In the left front engine compartment behind the left headlamp	• Engine Compartment Components (2 of 2) • Front of Engine Compartment Components (1 of 2)	P13 Horn Assembly
P16	Instrument Cluster	—	Attached to the left side of the instrument panel	Instrument Panel Components (1 of 2)	P16 Instrument Cluster
P19AG	Speaker - Left Front Door	—	Attached to the left front door	Driver Door Components	P19AG Speaker - Left Front Door
P19AH	Speaker - Right Front Door	—	Attached to the right front door	Front Passenger Door Components	P19AH Speaker - Right Front Door
P19F	Speaker - Left Rear Cargo Door	US8	Attached to the left cargo door	Rear Door Components (Passenger or Cargo)	P19F Speaker - Left Rear Cargo Door
P19LR	Speaker - Left Rear Roof	Cargo/Passenger	In the left rear headliner of the vehicle	Rear Door Components (Passenger or Cargo)	P19LR Speaker - Left Rear Roof
P19RR	Speaker - Right Rear Roof	Cargo/Passenger	In the right rear upper headliner of the vehicle	Rear Door Components (Passenger or Cargo)	P19RR Speaker - Right Rear Roof
P19T	Speaker - Right Rear Cargo Door	US8	Attached to the right cargo door	Rear Door Components (Passenger or Cargo)	P19T Speaker - Right Rear Cargo Door

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
P34D	Side Object Detection Indicator - Driver	UFT	Internal to the outside rear-view mirror - driver	—	—
P34P	Side Object Detection Indicator - Passenger	UFT	Internal to the outside rear-view mirror - passenger	—	—
P43	Collision Alert Indicators	UFL	Within the instrument cluster	—	*P43 Collision Alert Indicators*
Q1A	1-2 Shift Solenoid Valve	—	Internal T12 Automatic Transmission Assembly	—	—
Q1B	2-3 Shift Solenoid Valve	—	Internal T12 Automatic Transmission Assembly	—	—
Q2	A/C Compressor Clutch	C60	On the front of the A/C compressor lower right front of engine	• *Front of Engine Compartment Components (1 of 2)* • *Left Front of the Engine Components (LWN)* • *Right Side of the Engine Components (L8T) (2 of 2)*	• *Q2 A/C Compressor Clutch (LWN)* • *Q2 A/C Compressor Clutch (-LWN)*
Q6	Camshaft Position Actuator Solenoid Valve	L8T/LV1	Front of the engine behind the center of the water pump	*Left Front Side of the Engine Components (LV1)*	—
Q8	Control Solenoid Valve Assembly	—	Internal to T12 Automatic Transmission Assembly	*Automatic Transmission Internal Electrical Components*	—
Q12	Evaporative Emission Purge Solenoid Valve	L8T/LV1	On the top of the engine, rear of the throttle body	• *Left Side of the Engine Components (L8T)* • *Upper Left Side of the Engine Components (LV1)*	*Q12 Evaporative Emission Purge Solenoid Valve*
Q13	Evaporative Emission Vent Solenoid Valve	L8T/LV1	Attached to the side of the EVAP canister, front of the fuel tank	—	*Q13 Evaporative Emission Vent Solenoid Valve*
Q14	Exhaust Gas Recirculation Valve	LWN	In the engine compartment, on the top right of the engine	*Left Front of the Engine Components (LWN)*	*Q14 Exhaust Gas Recirculation Valve*
Q17A	Fuel Injector 1	—	On the left side of the intake manifold, at the #1 cylinder intake port	• *Right Rear of Engine Components (LWN)* • *Top of the Engine Components (LV1)*	*Q17A Fuel Injector 1*
Q17B	Fuel Injector 2	—	On the right side of the intake manifold, at the #2 cylinder intake port	• *Right Rear of Engine Components (LWN)* • *Top of the Engine Components (LV1)*	*Q17B Fuel Injector 2*
Q17C	Fuel Injector 3	—	On the left side of the intake manifold, at the #3 cylinder intake port	• *Right Rear of Engine Components (LWN)* • *Top of the Engine Components (LV1)*	*Q17C Fuel Injector 3*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
Q17D	Fuel Injector 4	—	On the right side of the intake manifold, at the #4 cylinder intake port	• Right Rear of Engine Components (LWN) • Top of the Engine Components (LV1)	Q17D Fuel Injector 4
Q17E	Fuel Injector 5	L8T/LV1	On the left side of the intake manifold, at the #5 cylinder intake port	Top of the Engine Components (LV1)	—
Q17F	Fuel Injector 6	L8T/LV1	On the right side of the intake manifold, at the #6 cylinder intake port	Top of the Engine Components (LV1)	—
Q17G	Fuel Injector 7	L8T	On the left side of the intake manifold, at the #7 cylinder intake port	—	—
Q17H	Fuel Injector 8	L8T	On the right side of the intake manifold, at the #8 cylinder intake port	—	—
Q18A	Fuel Pressure Regulator 1	LWN	In the engine compartment, mounted on top of the fuel injection pump	Left Front of the Engine Components (LWN)	Q18A Fuel Pressure Regulator 1
Q18B	Fuel Pressure Regulator 2	LWN	In the engine compartment, mounted to the front of the left fuel rail	Left Front of the Engine Components (LWN)	Q18B Fuel Pressure Regulator 2
Q20	Intake Air Flow Valve	LWN	Attached to the center front of the intake manifold	—	Q20 Intake Air Flow Valve
Q27A	Pressure Control Solenoid Valve 1	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q27B	Pressure Control Solenoid Valve 2	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q27C	Pressure Control Solenoid Valve 3	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q27D	Pressure Control Solenoid Valve 4	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q27E	Pressure Control Solenoid Valve 5	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q38	Throttle Body	L8T/LV1	Attached to the center front of the intake manifold	• Left Front of the Engine Components (LWN) • Right Side of the Engine Components (L8T) (2 of 2)	Q38 Throttle Body
Q39A	Torque Converter Clutch Pressure Control Solenoid Valve	MYD	Internal to T12 Automatic Transmission Assembly	—	—
Q44	Engine Oil Pressure Control Solenoid Valve	L8T	In the engine compartment, at the front of the engine, behind the front cover	—	—
Q47	Exhaust Gas Recirculation Cooler Bypass Solenoid Valve	LWN	In the engine compartment, on the left side of the engine attached to the EGR valve	Right Front of Engine Components (LWN)	Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve
Q61	Reductant Injector	LWN	Under the vehicle, attached to the exhaust pipe, near the rear of the catalytic converter	—	Q61 Reductant Injector

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
Q67	Exhaust After-treatment Fuel Injector	LWN	In the engine compartment, on the right rear side of the engine	—	Q67 Exhaust After-treatment Fuel Injector
Q77A	Transmission Control Solenoid Valve 1	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77B	Transmission Control Solenoid Valve 2	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77C	Transmission Control Solenoid Valve 3	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77D	Transmission Control Solenoid Valve 4	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77E	Transmission Control Solenoid Valve 5	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77F	Transmission Control Solenoid Valve 6	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77G	Transmission Control Solenoid Valve 7	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77H	Transmission Control Solenoid Valve 8	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q77J	Transmission Control Solenoid Valve 9	M5U	Under the vehicle, internal to the Transmision Assembly	—	—
Q85	Cooling Fan Clutch	LWN	In the engine compartment, attached to the cooling fan	• Front of Engine Compartment Components (1 of 2) • Left Side of Engine Components (LWN)	—
R3	Blower Motor Resistor	—	Right rear of the engine compartment, attached to the evaporator case	Engine Compartment Components (1 of 2)	R3 Blower Motor Resistor
R3B	Blower Motor Resistor - Auxiliary	C36/C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	Left Rear Cargo Area Components (Passenger or Cargo)	R3B Blower Motor Resistor - Auxiliary
R6A	Terminating Resistor - High Speed Bus	—	In the engine compartment	—	R6A Terminating Resistor - High Speed Bus
R10	Cooling Fan Resistor	LWN	In the engine compartment	—	R10 Cooling Fan Resistor
S2	Transmission Manual Shift Switch	—	Mounted on the shift lever, extending from the right side of the steering column	—	—
S13A	Door Lock Switch - Rear Cargo	Passenger/Cargo with AU3	Attached to the right cargo door accessory mount plate	Rear Door Components (Passenger or Cargo)	S13A Door Lock Switch - Rear Cargo
S13D	Door Lock Switch - Driver	AU3	Attached to the left front door accessory mount plate	Driver Door Components	S13D Door Lock Switch - Driver

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
S13P	Door Lock Switch - Passenger	AU3	Attached to the right front door accessory mount plate	Front Passenger Door Components	S13P Door Lock Switch - Passenger
S16	Driver Information Center Switch	—	On the dash, just to the left of P16 Instrument Cluster	Instrument Panel Components (1 of 2)	S16 Driver Information Center Switch
S18	Exhaust Brake Switch	M5U	In the center of the instrument panel	—	—
S30	Headlamp Switch	—	At the left side of the instrument panel	Instrument Panel Components (1 of 2)	S30 Headlamp Switch
S33	Horn Switch	—	Inside the upper steering column, behind the inflatable restraint steering wheel module	Steering Column Components (1 of 2)	—
S34	HVAC Controls Switch Assembly	—	In the center of the instrument panel	Instrument Panel Components (1 of 2)	• S34 HVAC Controls Switch Assembly X1 • S34 HVAC Controls Switch Assembly X2 • S34 HVAC Controls Switch Assembly X3 • S34 HVAC Controls Switch Assembly X4
S34F	HVAC Controls Switch Assembly - Auxiliary Front	C36/C69	On the front of the overhead console	Headliner Components	• S34F HVAC Controls Switch Assembly - Auxiliary Front (Rear HVAC Control) • S34F HVAC Controls Switch Assembly - Auxiliary Front (-Rear HVAC Control)
S34R	HVAC Controls Switch Assembly - Auxiliary Rear	C36/C69 with Rear HVAC Controls	In the headliner, near the center of the vehicle	Headliner Components	S34R HVAC Controls Switch Assembly - Auxiliary Rear
S39	Ignition Switch	—	On the right side of the steering column	Steering Column Components (1 of 2)	—
S40	Passenger Air Bag Disable Switch	C99	In the center of the instrument panel	Instrument Panel Components (1 of 2)	S40 Passenger Air Bag Disable Switch
S51	Telematics Button Assembly	UE1	In the center of the instrument panel, just below the radio	—	S51 Telematics Button Assembly
S52	Outside Rearview Mirror Switch	DEB/DE5	Attached to the left front door accessory mount plate	Driver Door Components	S52 Outside Rearview Mirror Switch
S64D	Seat Adjuster Switch - Driver	AG1	Attached to the front panel of the driver seat	Driver Seat Components	—
S64P	Seat Adjuster Switch - Passenger	AG2	Attached to the front panel of the front passenger seat	Passenger Seat Components	—
S70L	Steering Wheel Controls Switch - Left	K34	On the left steering wheel spoke	Instrument Panel Components (1 of 2)	—
S70R	Steering Wheel Controls Switch - Right	W1Y	On the right steering wheel spoke	Instrument Panel Components (1 of 2)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
S74	Tow/Haul Mode Switch	MYD	In the center of the instrument panel	Instrument Panel Components (1 of 2)	S74 Tow/Haul Mode Switch
S75	Traction Control Switch	—	In the center of the instrument panel	Instrument Panel Components (1 of 2)	S75 Traction Control Switch
S78	Turn Signal/Multifunction Switch	—	On the left side of the steering column	• Instrument Panel Components (1 of 2) • Steering Column Components (1 of 2)	—
S79D	Window Switch - Driver	A31	Attached to the left front door accessory mount plate	Driver Door Components	S79D Window Switch - Driver
S79P	Window Switch - Passenger	A31	Attached to the right front door accessory mount plate	Front Passenger Door Components	S79P Window Switch - Passenger
S85	Auxiliary Blower Motor Switch	C36/C69	In the center of the instrument panel	Instrument Panel Components (1 of 2)	S85 Auxiliary Blower Motor Switch
S155	Lane Departure Warning Switch	—	Near the center of the instrument panel, below the radio	—	S155 Lane Departure Warning Switch
T1	Accessory DC/AC Power Inverter Module	KI4	Attached to the Instrument Panel Harness	—	T1 Accessory DC/AC Power Inverter Module
T4G	Cellular Phone, Navigation, and Digital Radio Antenna	U2K/UBS	Mounted towards the left front of the roof	—	—
T4M	Radio Antenna	—	Mounted on top of the right front fender, adjacent to the hood	Right Rear of the Engine Compartment Components	—
T4S	Wireless Communication Antenna - Bluetooth	UE1	Internal to K73 Telematics Communication Interface Control Module	—	—
T8A	Ignition Coil 1	—	On the left rocker cover center at cylinder 1	• Left Side of the Engine Components (L8T) • Upper Left Side of the Engine Components (LV1)	T8A Ignition Coil 1
T8B	Ignition Coil 2	—	On the right rocker cover center at cylinder 2	Right Side of the Engine Components (L8T) (2 of 2)	T8B Ignition Coil 2
T8C	Ignition Coil 3	—	On the left rocker cover center at cylinder 3	• Left Side of the Engine Components (L8T) • Upper Left Side of the Engine Components (LV1)	T8C Ignition Coil 3
T8D	Ignition Coil 4	—	On the right rocker cover center at cylinder 4	Right Side of the Engine Components (L8T) (2 of 2)	T8D Ignition Coil 4
T8E	Ignition Coil 5	L8T/LV1	On the left rocker cover center at cylinder 5	• Left Side of the Engine Components (L8T) • Upper Left Side of the Engine Components (LV1)	T8E Ignition Coil 5

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
T8F	Ignition Coil 6	L8T/LV1	On the right rocker cover center at cylinder 6	Right Side of the Engine Components (L8T) (2 of 2)	T8F Ignition Coil 6
T8G	Ignition Coil 7	L8T	On the left rocker cover rear at cylinder 7	Left Side of the Engine Components (L8T)	T8G Ignition Coil 7
T8H	Ignition Coil 8	L8T	On the right rocker cover rear at cylinder 8	Right Side of the Engine Components (L8T) (2 of 2)	T8H Ignition Coil 8
T12	Automatic Transmission Assembly	—	Under the vehicle attached to the rear of the engine	—	T12 Automatic Transmission Assembly
W8	Blunt Cut - Trailer Provision	—	Behind the instrument panel, near the steering column	—	—
W12	Blunt Cut - Emergency Vehicle Provision	—	Near the instrument panel	—	—
W22	Blunt Cut - Rear Speaker Provision	—	Near the instrument panel	—	—
W25	Blunt Cut - Configurable Provision	—	Near the instrument panel	—	—
X50A	Fuse Block - Underhood	—	In the engine compartment, attached to the left front fender	• Engine Compartment Components (1 of 2) • Engine Compartment Components (2 of 2) • Engine Harness Routing - Engine Compartment (LV1) (1 of 2)	Electrical Center Identification Views on page 6-18
X50B	Fuse Block - Underhood Auxiliary	—	In the engine compartment	—	Electrical Center Identification Views on page 6-18
X52A	Fuse Block - Passenger Compartment	—	Below the driver seat	Body Harness Routing - Left Front Passenger Compartment	Electrical Center Identification Views on page 6-18
X53A	Fuse Block - Rear Body	PRP	Within the cargo area	—	Electrical Center Identification Views on page 6-18
X54D	Fuse Block - Fuel Heater	LWN	Within the engine compartment	—	Electrical Center Identification Views on page 6-18
X55AF	Fuse Holder - Engine Control Module	LWN	Within the engine compartment	—	Electrical Center Identification Views on page 6-18
X55AS	Fuse Holder - Rear Body Fuse Block	LWN	Within the engine compartment	—	Electrical Center Identification Views on page 6-18
X55AT	Fuse Holder 1 - Auxiliary Battery	LWN	Within the engine compartment	—	Electrical Center Identification Views on page 6-18
X60A	Junction Block - Underhood	LWN/TP3	In the engine compartment, in-between M64 Starter Motor and X50A Fuse Block - Underhood	—	Electrical Center Identification Views on page 6-18
X80A	Accessory Power Receptacle - Center Console 1	—	In the center of the instrument panel	Instrument Panel Components (1 of 2)	X80A Accessory Power Receptacle - Center Console 1

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X80B	Accessory Power Receptacle - Center Console 2	—	In the right center of the instrument panel	Instrument Panel Components (1 of 2)	X80B Accessory Power Receptacle - Center Console 2
X81	Accessory Power Receptacle - 110V AC	KI4	Within the passenger compartment	—	• X81 Accessory Power Receptacle - 110V AC X1 • X81 Accessory Power Receptacle - 110V AC X2
X84	Data Link Connector	—	Left lower side of the instrument panel, near the park brake pedal assembly	Instrument Panel Components (1 of 2)	X84 Data Link Connector
X85	Steering Wheel Air Bag Coil	—	Inside the upper steering column	—	X85 Steering Wheel Air Bag Coil X3
X87RB	Sliding Door Jamb Contact Plate - Right Body	AU3 with E24/YA2	Attached to the right B-pillar	• Right Side Hinged Door Components (E24) • Right Sliding Door Components (YA2)	• X87RB Sliding Door Jamb Contact Plate - Right Body (Body) • X87RB Sliding Door Jamb Contact Plate - Right Body (Sliding Door)
X88	Trailer Connector	UY7	Below the rear bumper, near the center	—	• X88 Trailer Connector (NE7) • X88 Trailer Connector (-NE7)
X92	USB Receptacle	USR	Slightly below and to the right of A11 Radio	—	—
X100	Instrument Panel Harness to Engine Harness	—	Left rear of the engine compartment near the underhood fuse block and the horn	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T) • Instrument Panel Harness Routing - Engine Compartment	X100 Instrument Panel Harness to Engine Harness
X101	Engine Harness to Chassis Harness	L8T/LV1	Left rear of the engine compartment behind the underhood fuse block	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	X101 Engine Harness to Chassis Harness
X102	Chassis Harness to Fuel Tank Harness	L8T/LV1	Under the vehicle, near the fuel tank	—	X102 Chassis Harness to Fuel Tank Harness
X103	Engine Harness to Starter Jumper Harness	—	In the engine compartment, right rear of engine block, near the starter	Engine Harness Routing - Right (L8T)	X103 Engine Harness to Starter Jumper Harness
X104	Instrument Panel Harness to Air Bag Jumper Harness	—	Instrument Panel Harness to Air Bag Jumper Harness, bottom left side of the radiator support	Instrument Panel Harness Routing - Engine Compartment	X104 Instrument Panel Harness to Air Bag Jumper Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X108	Battery Cable - Positive Harness to Engine Harness	LWN	Battery cable harness to the engine harness, near the front of the engine compartment	—	X108 Battery Cable - Positive Harness to Engine Harness
X109	Engine Harness to Underhood Lamp Harness	TR9	Engine Harness to Underhood Lamp Harness, left rear of the engine compartment	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	X109 Engine Harness to Underhood Lamp Harness
X111	Engine Harness to Glow Plug Jumper Harness	LWN	In the engine compartment, on the left side of the engine toward the top	—	X111 Engine Harness to Glow Plug Jumper Harness
X112	Engine Harness to Intake Manifold Pressure and Air Temperature Sensor Jumper Harness	LWN	Fuel rail jumper harness to the engine harness, in the engine compartment, near the upper rear corner of the left valve cover	—	X112 Engine Harness to Intake Manifold Pressure and Air Temperature Sensor Jumper Harness
X116	Engine Harness to Chassis Harness	LWN	In the engine compartment	—	X116 Engine Harness to Chassis Harness
X130	Engine Harness to Camshaft Position Sensor Jumper Harness	L8T/LV1	In the engine compartment, on the left rear side of engine block	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Front (L8T) • Engine Harness Routing - Front (LV1)	X130 Engine Harness to Camshaft Position Sensor Jumper Harness
X135	Camshaft Position Sensor Jumper Harness to Engine Jumper Harness	L8T	In the engine compartment, on the left rear side of engine block	Engine Harness Routing - Front (LV1)	—
X141	Instrument Panel Harness to Brake Fluid Level Switch Harness	UJ1	Instrument panel harness to the brake fluid alarm switch jumper harness, left rear of the engine compartment near the cowl	• Brake Booster Fluid Alarm Switches (UJ1) • Instrument Panel Harness Routing - Engine Compartment	X141 Instrument Panel Harness to Brake Fluid Level Switch Harness
X142	Engine Harness to Cooling Fan Clutch Jumper Harness	LWN	Engine chassis harness to the fan jumper harness, near the front of the engine	Front of Engine Compartment Components (2 of 2)	X142 Engine Harness to Cooling Fan Clutch Jumper Harness
X150	Instrument Panel Harness to Forward Lamp Harness	—	Instrument panel harness to the forward lamp harness, near the upper radiator hose at the radiator entry point	• Forward Lamp Harness Routing • Instrument Panel Harness Routing - Engine Compartment	X150 Instrument Panel Harness to Forward Lamp Harness
X155	Engine Harness to Engine Oil Pressure Sensor Jumper Harness	L8T/LV1	Engine Harness to Engine Oil Pressure Sensor Jumper Harness, in the engine compartment, left front of the engine, near the power steering pump	Engine Harness Routing - Front (L8T)	X155 Engine Harness to Engine Oil Pressure Sensor Jumper Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X160	Engine Harness to Fuel Injector Harness	L8T/LV1	In the engine compartment, rear of the engine near the top center	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Rear (L8T) • Fuel Injector Harness Routing (LV1)	• X160 Engine Harness to Fuel Injector Harness (L8T) • X160 Engine Harness to Fuel Injector Harness (LV1)
X161	Engine Harness to Fuel Injector Harness	L8T/LV1	In the engine compartment, rear of the engine near the top right	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Rear (L8T) • Fuel Injector Harness Routing (LV1)	• X161 Engine Harness to Fuel Injector Harness (L8T) • X161 Engine Harness to Fuel Injector Harness (LV1)
X175	Engine Harness to Transmission Jumper Harness	M5U	Engine harness to the transmission jumper harness	—	X175 Engine Harness to Transmission Jumper Harness
X176	Transmission Harness to Transmission Harness	M5U/MQD	Internal to the transmission	—	—
X178	Transmission Harness to Transmission Output Speed Sensor Jumper Harness	M5U/MQD	Transmission harness to the transmission speed sensor harness	—	—
X185	Instrument Panel Harness to Chassis Harness	—	In the engine compartment, near the X50A fuse block - underhood	—	X185 Instrument Panel Harness to Chassis Harness
X190	Accessory Harness to Accessory Power Fuse Block Rear Extension Harness	—	In the engine compartment	—	X190 Accessory Harness to Accessory Power Fuse Block Rear Extension Harness
X200	Steering Wheel Harness to Instrument Panel Harness	—	Steering column harness to the instrument panel harness, at the base of the steering column	• Instrument Panel Harness Routing - Dash Area (1 of 2) • Steering Column Harness Routing	X200 Steering Wheel Harness to Instrument Panel Harness
X202	Instrument Panel Harness to Engine Harness	—	Instrument panel harness to engine harness, about 8.8 inches (225 mm) from I/P underhood break out after pass through grommet	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	X202 Instrument Panel Harness to Engine Harness
X204	Body Harness to Headliner Harness	—	Body harness to headliner harness,	• Body Harness Routing - Right Front of Passenger Compartment (1 of 2) • Body Harness Routing - Right Front of Passenger Compartment (2 of 2)	X204 Body Harness to Headliner Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X205	Headliner Harness to Body Harness	—	Front headliner harness to the body harness, behind the A-pillar	• Body Harness Routing - Right Front of Passenger Compartment (1 of 2) • Body Harness Routing - Right Front of Passenger Compartment (2 of 2) • Body Harness Routing - Roof Area	X205 Headliner Harness to Body Harness
X206	Instrument Panel Harness to Instrument Panel Harness	—	Instrument Panel Harness to Instrument Panel Harness, left side of the instrument panel near the headlamp switch	—	X206 Instrument Panel Harness to Instrument Panel Harness
X220	Instrument Panel Harness to Park Brake Switch Jumper Harness	—	Instrument panel harness to the parking brake jumper harness, left side of the instrument panel, center of the parking brake pedal assembly	—	X220 Instrument Panel Harness to Park Brake Switch Jumper Harness
X225	Accelerator Pedal Position Sensor Harness to Instrument Panel Harness	—	Accelerator Pedal Position (APP) Jumper Harness to Instrument Panel Harness, located between Accelerator Pedal Position (APP) sensor and Instrument Panel Harness	—	X225 Accelerator Pedal Position Sensor Harness to Instrument Panel Harness
X289	Side Access Panel Harness to Instrument Panel Harness	PRP	Inside the vehicle, towards the left front	—	—
X290	Instrument Panel Harness to Side Access Panel Harness	PRP	Inside the vehicle, towards the left front	—	—
X291	Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness	—	In the engine compartment	—	X291 Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness
X306	Body Harness to Passenger Seat Harness	—	Body harness to the front passenger seat harness, right side of the passenger compartment below the passenger seat	• Body Harness Routing - Right Front of Passenger Compartment (1 of 2) • Body Harness Routing - Right Front of Passenger Compartment (2 of 2) • Driver Seat Harness Routing and Front Passenger Seat Harness Routing • Passenger Seat Components	X306 Body Harness to Passenger Seat Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X307	Body Harness to Driver Seat Harness	—	Body harness to the driver seat harness, left side of the passenger compartment below the driver seat	• Body Harness Routing - Left Front Passenger Compartment • Driver Seat Components • Driver Seat Harness Routing and Front Passenger Seat Harness Routing	X307 Body Harness to Driver Seat Harness
X318	Instrument Panel Harness to Body Harness	—	Instrument panel harness to the body harness, behind the left kick panel	• Body Harness Routing - Left Front Passenger Compartment • Instrument Panel Harness Routing - Dash Area (1 of 2)	X318 Instrument Panel Harness to Body Harness
X319	Auxiliary Heater Front Harness to Body Harness	ENC/C69/C36	Rear heater switch harness to the body harness, behind the left kick panel	Body Harness Routing - Left Front Passenger Compartment	X319 Auxiliary Heater Front Harness to Body Harness
X320	Upfitter Jumper Harness to Body Harness	YF2	Upfitter harness to the body harness, left side of the passenger compartment lower left C-pillar	—	—
X323	Air Bag Jumper Harness to Body Harness	ASF	At the base of the left C-pillar	Body Harness Routing - Left Front Passenger Compartment	X323 Air Bag Jumper Harness to Body Harness
X324	Air Bag Jumper Harness to Body Harness	ASF	At the base of the right C-pillar	Body Harness Routing - Right C-Pillar	X324 Air Bag Jumper Harness to Body Harness
X329	Instrument Panel Harness to Body Harness	UVC	Instrument panel harness to the body harness, in the passenger compartment under the driver seat	Body Harness Routing - Left Front Passenger Compartment	X329 Instrument Panel Harness to Body Harness
X330	Instrument Panel Harness to Body Harness	—	Instrument panel harness to the body harness, under the driver seat	• Body Harness Routing - Left Front Passenger Compartment • Instrument Panel Harness Routing - Dash Area (1 of 2)	X330 Instrument Panel Harness to Body Harness
X331	Instrument Panel Harness to Body Harness	—	Instrument panel harness to the body harness, under the driver seat	• Body Harness Routing - Left Front Passenger Compartment • Instrument Panel Harness Routing - Dash Area (1 of 2)	X331 Instrument Panel Harness to Body Harness
X390	Chassis Harness to Fuel Operated Heater Jumper Harness	-K08	Under the vehicle, along the left inner frame rail, near the fuel pump assembly	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X400	Right Rear Cargo Door Harness to Body Harness	Passenger/Cargo	Right cargo door harness to the body harness, right rear of the passenger compartment center of the right D-pillar	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2) • Rear Cargo Doors Harness Routing (Passenger or Cargo)	X400 Right Rear Cargo Door Harness to Body Harness
X403	Rear Cargo Door Harness to Body Harness	UVC	Rear cargo door harness to body harness,	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	• X403 Rearview Camera Harness to Body Harness (Cutaway) • X403 Right Rear Cargo Door Harness to Body Harness (-Cutaway)
X405	Chassis Harness to Chassis Harness	Cutaway	Cutaway rear lighting connector to the chassis harness, left rear frame rail	—	X405 Chassis Harness to Chassis Harness
X407	Auxiliary HVAC Harness to Body Harness	C36/C69	Rear HVAC harness to the body harness, left rear of the passenger compartment upper back side of the auxiliary HVAC module at the D-pillar	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2)	X407 Auxiliary HVAC Harness to Body Harness
X408	Rear Fascia Harness to Chassis Harness	UD7/UFT	Rear bumper harness to chassis harness,	Rear Bumper Harness Routing	X408 Rear Fascia Harness to Chassis Harness
X409	Auxiliary HVAC Harness to Body Harness	C36/C69	Rear HVAC harness to body harness, left rear of the passenger compartment upper back side of the auxiliary HVAC module	Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo)	X409 Auxiliary HVAC Harness to Body Harness
X410	Tail Lamp Assembly - Left Harness to Body Harness	Passenger/Cargo	Left Tail Lamp Assembly Harness to Body Harness, left rear of the passenger compartment at the D-pillar	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2)	X410 Tail Lamp Assembly - Left Harness to Body Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X411	Left Rear Cargo Door Harness to Body Harness	Passenger/Cargo	Left cargo door harness to the body harness, left rear of the passenger compartment center of the left D-pillar	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Rear Cargo Doors Harness Routing (Passenger or Cargo)	X411 Left Rear Cargo Door Harness to Body Harness
X412	Right Rear Cargo Door Harness to Body Harness	Passenger/Cargo	Right cargo door harness to the body harness, right rear of the passenger compartment center of the right D-pillar	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2) • Rear Cargo Doors Harness Routing (Passenger or Cargo)	X412 Right Rear Cargo Door Harness to Body Harness
X415	Rear Speaker Harness to Body Harness	Passenger/Cargo	Rear overhead speakers jumper harness to the body harness, rear of the passenger compartment center of the rear roof rail	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	X415 Rear Speaker Harness to Body Harness
X419	Center High Mounted Stop Lamp Jumper Harness to Body Harness	Passenger/Cargo	CHMSL harness to the body harness, rear of the passenger compartment center of the rear roof rail	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2)	X419 Center High Mounted Stop Lamp Jumper Harness to Body Harness
X420	Tail Lamp Assembly - Right Harness to Body Harness	Passenger/Cargo	Right Tail Lamp Assembly Harness to Body Harness, right rear of the passenger compartment at the D-pillar	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2) • Body Harness Routing - Roof Area	X420 Tail Lamp Assembly - Right Harness to Body Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X421	Headliner Harness to Body Harness	—	Body harness to rear headliner harness	• Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Roof Area	X421 Headliner Harness to Body Harness
X460	Chassis Harness to Chassis Harness	Cutaway with UY7 and NE7	Trailer Provision to Chassis Harness, in rear near Trailer Harness	—	X460 Chassis Harness to Chassis Harness
X500	Driver Door Harness to Body Harness	—	Driver door harness to the body harness, behind the left kick panel	Body Harness Routing - Left Front Passenger Compartment	X500 Driver Door Harness to Body Harness
X501	Air Bag Jumper Harness to Driver Door Harness	ASF	Driver side impact sensor harness to the driver door harness, in the driver door behind the trim panel	—	X501 Air Bag Jumper Harness to Driver Door Harness
X600	Passenger Door Harness to Body Harness	—	Passenger door harness to the body harness, behind the right kick panel	• Body Harness Routing - Right Front of Passenger Compartment (1 of 2) • Body Harness Routing - Right Front of Passenger Compartment (2 of 2)	X600 Passenger Door Harness to Body Harness
X601	Side Impact Sensor - Right Front Jumper Harness to Passenger Door Harness	ASF	Passenger side impact sensor harness to the passenger door harness, in the passenger door behind the trim panel	—	X601 Side Impact Sensor - Right Front Jumper Harness to Passenger Door Harness
X901	Rear Window Defogger Harness to Left Rear Cargo Door Harness	C49	Rear window defogger jumper harness to the left cargo door harness, in the left cargo door	Rear Cargo Doors Harness Routing (Passenger or Cargo)	X901 Rear Window Defogger Harness to Left Rear Cargo Door Harness
X902	Rear Window Defogger Harness to Right Rear Cargo Door Harness	C49	Rear window defogger jumper harness to the right cargo door harness, in the right cargo door	Rear Cargo Doors Harness Routing (Passenger or Cargo)	X902 Rear Window Defogger Harness to Right Rear Cargo Door Harness
G100	Forward Lamp Harness	—	Left front of the engine compartment, attached to the front of the left fender	G100 and G101	—
G101	Forward Lamp Harness	—	Right front of the engine compartment, attached near the front of the right fender	G100 and G101	—
G102	Engine Harness	—	Rear of the engine compartment, left rear of the engine on the left cylinder head	G102, G103, and G108 (L8T)	—
G103	Engine Harness	—	Rear of the engine compartment, left rear of the engine on the left cylinder head	G102, G103, and G108 (L8T)	—
G104	Negative Battery Cable	—	Mounted on the engine, extending towards the battery	G104 (L8T)	—
G105	Negative Battery Cable	—	Front of the engine compartment, right front of the inner frame rail	G105 and G106 (L8T)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
G106	Negative Battery Cable	—	Front of the engine compartment, right front fender	G105 and G106 (L8T)	—
G107	Engine Harness	LV1	Rear of the engine compartment, left rear of the engine on the left cylinder head	G107 and G108 (LV1)	—
G108	Engine Harness	L8T/LV1	Rear of the engine compartment, towards top of the engine	• G102, G103, and G108 (L8T) • G107 and G108 (LV1)	—
G300	Chassis Harness	—	Left side outer frame, near the EBCM	G300, G400, G404 and G405	—
G301	Instrument Panel	—	Left front of the passenger compartment, behind the kick panel next to G302	—	—
G302	Instrument Panel	—	Left front of the passenger compartment, behind the kick panel next to G301	G302 and G347	—
G304	Instrument Panel	—	Right front of the passenger compartment, behind the kick panel	G304	—
G305	Auxiliary Battery Negative Cable	LWN/TP3	Left center outer frame rail, near the auxiliary battery	• Frame and Underbody Components (2 of 2) • G305	—
G347	Body Harness	—	Left side of the passenger compartment, lower left B-pillar part of JX347	G302 and G347	—
G348	Body Harness	—	Right side of the passenger compartment, lower right B-pillar part of JX348	—	—
G400	Chassis Harness	LWN	Left rear inner side frame rail	G300, G400, G404 and G405	—
G401	Body Harness	Passenger/Cargo	Right rear of the passenger compartment, upper right D-pillar	G401 and G402 (Passenger or Cargo)	—
G402	Body Harness	Passenger/Cargo	Left rear of the passenger compartment, center left D-pillar	G401 and G402 (Passenger or Cargo)	—
G403	Side Access Panel Harness	PRP	Left rear of the passenger compartment, center left D-pillar	—	—
G404	Chassis Harness	—	In vehicle underbody, near center, on left frame rail	G300, G400, G404 and G405	—
G405	Chassis Harness	LWN	In vehicle underbody, near center, on left frame rail	G300, G400, G404 and G405	—
J100	Forward Lamp Harness	—	At the left front of the engine compartment, just behind the left front headlamp assembly	—	—
J101	Engine Harness	—	In the engine harness, on the right side of the engine, approximately 5 cm (2 in) from the MAP sensor breakout	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J102	Engine Harness	—	In the engine harness, on the right side of the engine, approximately 6 cm (2 in) from the MAP sensor breakout	• Engine Harness Routing - Engine Compartment (LV1) (1 of 2) • Engine Harness Routing - Rear (L8T)	—
J105	Fuse Block Jumper Harness	9L7	In the fuse block jumper harness, between KR81 Auxiliary Battery Relay 1 and X50B Fuse Block – Underhood Auxiliary	—	—
J106	Fuse Block Jumper Harness	9L7	In the fuse block jumper harness	—	—
J107	Engine Harness	L8T/LV1	In the engine harness, approximately 11.5 cm (4.53 in) from the horn assembly breakout	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J108	Engine Harness	L8T	In the engine harness, approximately 10.5 cm (4.0 in) from the engine control module breakout	Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J109	Engine Harness	L8T/LV1	In the engine harness, approximately 5.0 cm (2.0 in) from the engine control module breakout	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J110	Forward Lamp Harness	—	In the forward lamp harness, Left front of the vehicle, approximately 12 cm (5 in) from the left headlamp connector breakout	Forward Lamp Harness Routing	—
J111	Engine Harness	L8T	In the engine harness, approximately 5.0 cm (2.0 in) from the brake fluid level switch breakout	Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J112	Engine Harness	L8T/LV1	In the engine harness, approximately 33.5 cm (13.2 in) from the multifunction intake air sensor breakout	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J115	Engine Harness	—	In the engine harness, in the right front of the engine compartment, approximately 15 cm (6 in) from the X101 breakout	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J119	Chassis Harness	K08	In the chassis harness, near the left front inner frame rail, approximately 15 cm (6 in) from the coolant heater breakout	—	—
J121	Forward Lamp Harness	—	In the forward lamp harness, near the front center of the vehicle, approximately 48 cm (19 in) from the left headlamp breakout	*Forward Lamp Harness Routing*	—
J122	Forward Lamp Harness	—	In the forward lamp harness, near the left front of the vehicle, approximately 12 cm (5 in) from the underhood fuse block X4 breakout	*Forward Lamp Harness Routing*	—
J123	Engine Harness	L8T	In the engine harness, near the left front side of the vehicle, approximately 16 cm (6 in) from the underhood fuse block X1 breakout	*Engine Harness Routing - Rear (L8T)*	—
J125	Engine Harness	LWN	In the engine harness, approximately 24.5 cm (9.6 in) from the cooling fan resistor breakout	—	—
J126	Engine Harness	LWN	In the engine harness, approximately 25.5 cm (10 in) from the horn assembly breakout	—	—
J127	Engine Harness	LWN	In the engine harness, approximately 12.0 cm (4.7 in) from the brake fluid level switch breakout	—	—
J128	Engine Harness	LWN	In the engine harness, approximately 14.5 cm (5.7 in) from the fuse block – fuel heater breakout	—	—
J130	Engine Harness	L8T/LV1	In the engine harness, approximately 12.5 cm (4.9 in) from the knock sensor 1 breakout	*Engine Harness Routing - Front (L8T)*	—
J131	Engine Harness	L8T/LV1	In the engine harness, approximately 19.5 cm (7.7 in) from the knock sensor 1 breakout	*Engine Harness Routing - Front (L8T)*	—
J135	Engine Harness	LWN	In the engine harness, approximately 24.5 cm (9.6 in) from the fuse block – fuel heater breakout	—	—
J143	Engine Harness	L8T/LV1	Adjacent to B52C Heated Oxygen Sensor - Bank 1 Sensor 1 and B52E Heated Oxygen Sensor - Bank 2 Sensor 1	• *Engine Harness Routing - Engine Compartment (LV1) (1 of 2)* • *Engine Harness Routing - Rear (L8T)*	—
J144	Engine Harness	L8T/LV1	Adjacent to B52D Heated Oxygen Sensor - Bank 1 Sensor 2 and B52F Heated Oxygen Sensor - Bank 2 Sensor 2	*Engine Harness Routing - Engine Compartment (LV1) (1 of 2)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J170	Engine Harness	LV1	In the engine harness, approximately 24.5 cm (9.6 in) from ignition coil 5	Engine Harness Routing - Engine Compartment (LV1) (1 of 2)	—
J171	Engine Harness	LV1	In the engine harness, approximately 26 cm (10.2 in) from ignition coil 6	Engine Harness Routing - Engine Compartment (LV1) (1 of 2)	—
J175	Transmission Internal Harness	M5U	Within the automatic transmission assembly	—	—
J176	Transmission Internal Harness	M5U	Within the automatic transmission assembly	—	—
J177	Transmission Internal Harness	M5U	Within the automatic transmission assembly	—	—
J181	Ignition Coil Jumper Harness	L8T	In the ignition coil jumper harness for bank 1, approximately 5 cm (2.0 in) from the X126 breakout	Engine Harness Routing - Rear (L8T)	—
J182	Left Ignition Coil Harness	L8T/LV1	In the odd ignition/coil module jumper harness, top left of the engine	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J183	Right Ignition Coil Harness	L8T	In the even ignition/coil module jumper harness, top right of the engine	Engine Harness Routing - Rear (L8T)	—
J184	Left Ignition Coil Harness	LV1	In the odd ignition/coil module jumper harness, top left of the engine	Engine Harness Routing - Engine Compartment (LV1) (2 of 2)	—
J185	Right Ignition Coil Harness	LV1	In the even ignition/coil module jumper harness, top right of the engine	Engine Harness Routing - Engine Compartment (LV1) (2 of 2)	—
J188	Right Ignition Coil Harness	L8T/LV1	In the even ignition/coil module jumper harness, top right of the engine	• Engine Harness Routing - Engine Compartment (LV1) (2 of 2) • Engine Harness Routing - Left Side of Engine Compartment (L8T)	—
J201	Instrument Panel	UFL	In the instrument panel harness, approximately 2 cm (0.79 in) from the park brake switch breakout	—	—
J202	Steering Column Harness	—	In the steering column harness, approximately 25 cm (9 in) from the X200 connector	—	—
J203	Steering Column Harness	—	In the steering column harness, approximately 27 cm (10.5 in) from the X200 connector	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J205	Steering Column Harness	—	In the steering column harness, approximately 30 cm (12 in) from the X200 connector	—	—
J207	Instrument Panel	—	In the instrument panel harness, center of the instrument panel, approximately 70 cm (27 in) from the radio and HVAC control assembly breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J208	Steering Wheel Harness	K34 with W1Y	In the steering wheel harness, near the X200 connector	—	—
J209	Steering Wheel Harness	K34 with W1Y	In the steering wheel harness, near the X200 connector	—	—
J210	Steering Wheel Harness	K34/W1Y	In the steering wheel harness, near the X200 connector	—	—
J211	Instrument Panel	UD7/UFT	In the engine compartment, approximately 30 cm (11.8 in) from the windshield washer pump	—	—
J223	Instrument Panel	UVC	Adjacent to K9 Body Control Module	—	—
J241	Instrument Panel	—	In the instrument panel harness, center of the instrument panel, approximately 13.5 cm (5.3 in) from the parking assist control module breakout	—	—
J244	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 12 cm (5 in) from the X200 breakout towards the instrument panel cluster connector	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J245	Instrument Panel	DEB/DE5	In the instrument panel harness, center of the instrument panel, approximately 30 cm (12 in) from the radio and HVAC control assembly breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J246	Instrument Panel	DEB/DE5	In the instrument panel harness, center of the instrument panel, approximately 43.5 cm (17 in) from the radio and HVAC control assembly breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J247	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 36 cm (14.37 in) from the C200 breakout towards the underhood fuse block	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J248	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 8 cm (3.14 in) from the C200 breakout towards the instrument panel cluster connector	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J249	Instrument Panel	—	In the instrument panel harness, right side of the instrument panel, approximately 21 cm (8 in) from the G304 breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J250	Instrument Panel	—	In the instrument panel harness, right side of the instrument panel, approximately 5 cm (2.16 in) from the air temperature actuator connector breakout towards the inflatable restraint instrument panel module connector	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J263	Instrument Panel	TP3	In the instrument panel harness, left side of the instrument panel, approximately 36 cm (14.37 in) from the C200 breakout towards the underhood fuse block	—	—
J264	Steering Column Harness	—	In the steering wheel harness, approximately 20 cm (8 in) from the X200 connector	—	—
J270	Instrument Panel	U2K/UBS	In the instrument panel harness, approximately 15 cm (6 in) from the digital radio receiver and cigar lighter connectors breakout	—	—
J271	Instrument Panel	U2K/UBS/UE1	In the instrument panel harness, approximately 7.5 cm (3 in) from the vehicle communication interface module and cigar lighter connectors breakout	—	—
J280	Instrument Panel	Cutaway without YF7	In the instrument panel harness, approximately 20 cm (7.9 in) from the body fuse block and air bag module connectors breakout	—	—
J300	Side Access Panel Harness	PRP	Slightly forward of X53A Fuse Block - Rear Body	—	—
J302	Instrument Panel	PRP	Adjacent to K9 Body Control Module	—	—
J307	Front Headliner Harness	C69 with YF7	In the front headliner harness, center of the headliner, approximately 15 cm (6 in) from the X205 breakout towards the left vanity mirror lamp connector	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J308	Body Harness	C69	In the body harness, left side of the passenger compartment, approximately 22 cm (9 in) from the breakout for the door jamb switch LR side	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J309	Side Access Panel Harness	PRP	Adjacent to X53A Fuse Block - Rear Body	—	—
J310	Body Harness	C69	In the body harness, left side of the passenger compartment, approximately 32 cm (12.79 in) from the breakout for the door jamb switch left rear side	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J311	Body Harness	C69	In the body harness, left side of the passenger compartment, approximately 5 cm (2 in) from the door jamb switch LR side breakout	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J314	Front Headliner Harness	—	In the front headliner harness, center of the headliner, approximately 22 cm (8.5 in) from the X205 breakout towards the left vanity mirror lamp connector	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J315	Chassis Harness	—	In the chassis harness, left side frame, approximately 31 cm (12 in) from the G300 breakout	—	—
J322	Body Harness	Cargo/Passenger with AU3	In the body harness, near the front passenger seat, approximately 40 cm (16 in) from the X306 breakout	—	—
J323	Body Harness	Cargo/Passenger with AU3	In the body harness, near the front passenger seat, approximately 20 cm (8 in) from the X306 breakout	—	—
J330	Rear Headliner Harness	Passenger	In the rear headliner harness, center of the headliner, approximately 30 cm (12 in) to the courtesy reading lamp rear breakout	—	—
J331	Body Harness	Passenger	In the body harness, near the front passenger seat, approximately 15 cm (6 in) from the X306 breakout	*Body Harness Routing - Rear Overview (Passenger or Cargo)*	—
J332	Front Headliner Harness	DH6 with YF7	In the front headliner harness, center of the headliner, approximately 11 cm (4 in) from the front right sunshade breakout	—	—
J333	Front Headliner Harness	DH6 without YF7	In the front headliner harness, center of the headliner, approximately 20 cm (8 in) from the right sunshade breakout	—	—
J334	Body Harness	UVC	Approximately 5 inches rearward of X53A Fuse Block - Rear Body	• *Body Harness Routing - Left Front Passenger Compartment* • *Body Harness Routing - Right Front of Passenger Compartment (1 of 2)*	—
J348	Side Access Panel Harness	PRP	In the cargo area, in-between the headliner and the roof, in-between the left side access panel and the right side access panel	—	—
J350	Side Access Panel Harness	PRP with UF2	In the cargo area, in-between the headliner and the roof, in-between the left side access panel and the right side access panel	—	—
J355	Front Headliner Harness	C69 with YF7	In the front headliner harness, center of the headliner, approximately 61 cm (24 in) from the X205 breakout towards the left vanity mirror lamp connector	*Body Harness Routing - Rear Overview (Passenger or Cargo)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J356	Body Harness	—	In the body harness, on the left front side of the vehicle, approximately 20 cm (7.87 in) from the underhood fuse block breakout	• Body Harness Routing - Left Front Passenger Compartment • Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Front of Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J357	Body Harness	—	In the body harness, approximately 9.0 cm (3.54 in) from the breakout for X307	Body Harness Routing - Rear Overview (Passenger or Cargo)	—
J359	Body Harness	U80	In the body harness, approximately 20.0 cm (7.9 in) from the multi-axis acceleration sensor module breakout	Body Harness Routing - Rear Overview (Passenger or Cargo)	—
J373	Body Harness	Passenger	At the base of the right C-pillar	Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J374	Body Harness	Cargo without YF7	In the body harness, approximately 20 cm (7.9 in) from the dome lamp – left roof rail breakout	—	—
J375	Body Harness	Cargo without YF7	In the body harness, approximately 20 cm (7.9 in) from the dome lamp – right roof rail breakout	Body Harness Routing - Right Front of Passenger Compartment (2 of 2)	—
J376	Body Harness	Cargo/Passenger	In the body harness, approximately 72.5 cm (28.5 in) from the X410 breakout	• Body Harness Routing - Right Front of Passenger Compartment (2 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J377	Side Access Panel Harness	PRP	Adjacent to X53A	—	—
J378	Side Access Panel Harness	PRP	Adjacent to X53A	—	—
J387	Chassis Harness	Cutaway	In the chassis harness, approximately 6 cm (2.36 in) from the trailer connector breakout	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J388	Chassis Harness	Cutaway	In the chassis harness, approximately 10 cm (3.94 in) from the trailer connector breakout	—	—
J401	Body Harness	C36/C49/C69	In the body harness, in the left rear of the vehicle, approximately 21 cm (8 in) from the X401 breakout	• *Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo)* • *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)*	—
J402	Chassis Harness	—	In the chassis harness, left frame, approximately 20 cm (7.87 in) from the G400 breakout towards the EBCM connector	—	—
J403	Body Harness	Cargo/Passenger	In the body harness, left rear of the passenger compartment, approximately 18.5 cm (7 in) from the X402 breakout	• *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J404	Chassis Harness	—	In the chassis harness, left frame, approximately 10 cm (4 in) from the G400 breakout towards the EBCM connector	—	—
J405	Rear HVAC Harness	C36/C69	In the rear HVAC harness, left rear of the passenger compartment, approximately 13 cm (5.31 in) from the auxiliary blower motor relay breakout towards X409	—	—
J406	Chassis Harness	LWN	Within the chassis harness	—	—
J407	Rear Headliner Harness	Passenger	In the rear headliner harness, center of the headliner, approximately 6.5 cm (2.5 in) from X304 towards the rear courtesy/reading lamp connector	—	—
J408	Side Access Panel Harness	PRP	In the Left Side Access Panel compartment	—	—
J409	Side Access Panel Harness	PRP	In the Right Side Access Panel compartment	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J410	Body Harness	Cargo/Passenger	In the body harness, in the left rear of the vehicle, approximately 47 cm (18 in) from the X401 breakout	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Front of Passenger Compartment (2 of 2) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J411	Rear HVAC Harness	C69	In the rear HVAC harness, left rear of the passenger compartment, approximately 20 cm (8 in) from the blower motor relay breakout, towards X409	—	—
J412	Rear HVAC Harness	C36/C69	In the rear HVAC harness, left rear of the passenger compartment, approximately 7 cm (2.8 in) from the blower motor relay breakout towards X409	—	—
J413	Rear HVAC Harness	C36/C70	In the rear HVAC harness, left rear of the passenger compartment, approximately 10 cm (4 in) from the auxiliary blower motor resistor assembly breakout	—	—
J420	Rear Bumper Harness	UD7	In the rear bumper harness, approximately 57 cm (22 in) from the right rear middle object alarm sensor towards the left rear corner object alarm sensor	—	—
J421	Rear Bumper Harness	UD7	In the rear bumper harness, approximately 15 cm (6 in) from the left rear corner object alarm sensor towards the right rear middle object alarm sensor	—	—
J422	Chassis Harness	LWN	In the chassis harness, approximately 11.5 cm (4.5 in) from the wheel speed sensor - left front breakout	—	—
J425	Parking Aid Jumper Harness	UFT	At the rear of the vehicle	Rear Bumper Harness Routing	—
J426	Parking Aid Jumper Harness	UFT	At the rear of the vehicle	Rear Bumper Harness Routing	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J450	Body Harness	—	In the body harness, in the rear of the vehicle, approximately 10 cm (3.93 in) from the X415 breakout	• Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J451	Body Harness	—	In the body harness, in the rear of the vehicle, approximately 17 cm (6.5 in) from the X415 breakout	• Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J452	Body Harness	—	In the body harness, approximately 17 cm (6.5 in) from the X419 breakout	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J453	Body Harness	—	In the body harness, in the left rear of the vehicle, approximately 10 cm (4 in) from the X419 breakout	• Body Harness Routing - Left Rear Passenger Compartment (Passenger or Cargo) • Body Harness Routing - Rear Overview (Passenger or Cargo) • Body Harness Routing - Right Rear Passenger Compartment (1 of 2) • Body Harness Routing - Right Rear Passenger Compartment (2 of 2)	—
J500	Driver Door Harness	AU3/DEB/DE5/A31	In the left front door harness, driver door, approximately 7 cm (3 in) from the left front door speaker breakout	—	—
J501	Driver Door Harness	AU3	In the left front door harness, driver door, approximately 6 cm (2.36 in) from the driver outside rearview mirror breakout	—	—
J502	Driver Door Harness	DEB/DE5	In the left front door harness, driver door, approximately 4 cm (2 in) from the left front door speaker breakout	—	—
J600	Passenger Door Harness	AU3/DEB/DE5/A31	In the right front door harness, front passenger door, approximately 4 cm (2 in) from the passenger outside rearview mirror breakout	—	—
J601	Passenger Door Harness	AU3	In the right front door harness, front passenger door, approximately 5 cm (2 in) from the passenger outside rearview mirror breakout	—	—
J901	Right Rear Cargo Door Harness	Cargo/Passenger with AU3	In the rear cargo door harness, approximately 4 cm (1.5 in) from the X902 breakout	—	—
J902	Right Rear Cargo Door Harness	Cargo/Passenger with C49	In the right rear door harness, right rear cargo door, approximately 12 cm (4.7 in) from the X902 breakout	Rear Cargo Doors Harness Routing (Passenger or Cargo)	—
JX200	Instrument Panel Harness	—	In the instrument panel harness, left front side of the floor, where the carpet ends behind the brake pedal next to JX250	Instrument Panel Harness Routing - Dash Area (1 of 2)	JX200 Splice Pack
JX250	Instrument Panel Harness	—	In the instrument panel harness, left front side of the floor, where the carpet ends behind the brake pedal next to JX200	Instrument Panel Harness Routing - Dash Area (1 of 2)	JX250 Splice Pack

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
JX347	Body Harness	—	In the body harness, left side of the passenger compartment, attached to the lower left B-pillar part of G347	• Body Harness Routing - Left Front Passenger Compartment • Body Harness Routing - Right Front of Passenger Compartment (2 of 2)	JX347 Splice Pack
JX348	Body Harness	—	In the body harness, right side of the passenger compartment, attached to the lower right B-pillar part of G348	Body Harness Routing - Right Front of Passenger Compartment (1 of 2)	JX348 Splice Pack

Description and Operation

Power Mode Description and Operation

Serial Data Power Mode Master

Power to many of this vehicles circuits is controlled by the module that is designated the power mode master (PMM). This vehicles PMM is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle's body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is usefull to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The PMM will also activate relays and other direct outputs of the PMM as needed. The PMM determines which power mode (Off, Accessory, Run, Crank Request) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the PMM serial data message does not match what the individual module can see from its own connections.

The PMM receives ignition switch signals to identify the operators desired power mode. The PMM Power Mode Parameters table below illustrates the correct state of these input parameters (circuits) in correspondence to the ignition switch position:

PMM Power Mode Parameters

Ignition Switch Position	Power Mode Transmitted	Ign. Off / Run / Crank (Run Crank Ignition 1 Voltage Circuit)	Ignition Accessory / Run (Accessory Voltage Circuit)	Ignition Run / Crank (Ignition 1 Voltage Circuit)
Off Key Out	Off	Key Out/ACC	Inactive	Inactive
Off Key IN	Off	Key In/Off	Inactive	Inactive

PMM Power Mode Parameters (cont'd)

Ignition Switch Position	Power Mode Transmitted	Ign. Off / Run / Crank (Run Crank Ignition 1 Voltage Circuit)	Ignition Accessory / Run (Accessory Voltage Circuit)	Ignition Run / Crank (Ignition 1 Voltage Circuit)
Accessory	Accessory	Key Out/ACC	Active	Inactive
Run	Run	Run	Active	Active
Start	Crank Request	Crank	Inactive	Active

Relay Controlled Power Mode

The body control module (BCM) uses the discrete ignition switch inputs Run/Crank Ignition 1 Voltage, Accessory Voltage, and Ignition 1 Voltage, to distinguish the correct power mode. The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The RAP relay remains on for a timed period after the Ignition key is removed. Refer to *Retained Accessory Power Description and Operation on page 6-433* for more information on the retained accessory power (RAP) function.

BCM Awake/Sleep States

The body control module (BCM) is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

- The ignition switch is OFF, key out.
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

Retained Accessory Power Description and Operation

Retained Accessory Power (RAP)

The retained accessory power (RAP) system allows specific vehicle functions to operate for a specific amount of time after the ignition switch is turned OFF. The BCM monitors the ignition switch position, battery condition, and each door ajar/open switch status to determine whether RAP should be initiated or terminated. RAP is controlled with 2 different methods; serial data and relay control. Some modules receive a RAP message over the serial data circuits. Serial data controlled RAP is deactivated as required by their modules RAP power mode operation. Other subsystems are activated directly by the BCM through a RAP relay. Components and systems that are active in RAP are also activated anytime the ignition is any position other than OFF regardless of the door switch signals. The RAP relay is located in the body fuse block, is grounded at G302, and is controlled by the rap relay coil control circuit from the BCM.

Relay Controlled RAP

The BCM keeps the RAP relay energized during all power modes, except Off-Awake and Crank. The relay is also energized for approximately 10 minutes after shutting the ignition OFF and removing the key, providing no door is opened.

Relay controlled RAP will end when one of the following conditions is met:

- The BCM receives an input from any door ajar switch indicating the opening of any door after the ignition key is out of the ignition.

Important: If the BCM is receiving any door ajar signal from those switches when the ignition key is turned OFF, RAP will not initiate.

- The BCM internal timer for the RAP expires after approximately 10 minutes.
- The BCM detects a decrease in battery capacity below a prescribed limit.

The power window system is powered by the RAP relay during the retained accessory power (RAP) power mode.

Serial Data Controlled RAP

RAP systems controlled by serial data are as follows:

Radio

Radio RAP activation/termination is the same as relay operation with 1 exception; the only door switch that will turn off the radio during RAP is the driver door open switch.

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